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19th, 20th, 21st and 22nd
ANNUAL REPORTS

OF THE

State Inspector of
Coal Mines

1931 to 1934 Inclusive



1935



THE BRADFORD-ROBINSON PTG. CO., DENVER

19th, 20th, 21st and 22nd
ANNUAL REPORTS

OF THE

State Inspector of
Coal Mines - Mike Long

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THE BRADFORD-ROBINSON PTG. CO., DENVER

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JAMES DALRYMPLE
(Died October 10, 1934)

On October 10, 1934, Mr. James Dalrymple, State Inspector of Coal Mines, was returning from a trip of inspection. He stopped at Florence, Colorado, and as he stepped off from the curbing to cross the street he was struck by an automobile which came from around a corner, injuring him so severely that he died almost instantly.

The death of Mr. Dalrymple is a severe loss to the coal mining industry. He was an able and efficient official, under whose administration conditions in the coal mines were vastly improved. He was appointed Deputy Inspector in the fall of 1909 and later, in the spring of 1910, he was made Chief Inspector. He had a thorough knowledge of coal mining and as an inspector gained a national reputation. He was fearless, both in cases of disaster or when it came to the safeguarding of those engaged in the coal mining industry. He was always open to conviction and readily invited discussions pertaining to the safety in coal mines. One of the first acts after he assumed charge of the coal mine inspection department was, with the cooperation of the coal mine owners, to draft a new set of laws to meet the requirements for a more effective safeguarding of life and property. The results more than repaid the effort. In 1913 the present coal mining laws were enacted. This resulted in better underground working conditions, reduction of fatal and non-fatal accidents.

When Mr. Dalrymple was appointed Chief Inspector the death rate in our coal mines was ten per thousand employed. Through his untiring efforts this was reduced to two and two-tenths per thousand employed in 1933. His heart and soul was in his work. His energy never fagged in his efforts to carry out the provisions of the coal mining laws. He was honest and straightforward, of great moral and physical courage and was at all times fair to both labor and employer. He performed his duties sincerely and efficiently, always alert to the work he had in hand.

It seems a strange twist of fate that he who had gone through so many serious mine explosions and mine fires, jeopardizing his life to rescue trapped men or bring to the surface the dead and mangled, should be killed in the open street.

It was my privilege to work under Mr. Dalrymple for nearly twenty-five years. His death is a personal loss as he was always considerate and kind to me and treated me more as a friend than a mere employe. I was at his side in the many and constant efforts made by him to keep the department on the highest level of efficiency and as the coal industry went down with the depression and he was not able to maintain the high standard he built up, he grieved deeply. He was a man of fine character, an able official and a sincere friend; very charitable and generous to those who appealed to him, and there were many who came to him.

In kindly remembrance these lines are dedicated.

ADA R. TIBBITS,
Chief Clerk, State Inspector of Coal Mines.

LETTER OF TRANSMITTAL

Denver, Colorado, December 31, 1935.

To His Excellency,
ED C. JOHNSON,
Governor of Colorado.

Sir: Herewith I have the honor to submit to you, in accordance with Section 3475 of the Compiled Laws of Colorado of an Act entitled "Coal Mining Laws," the nineteenth, twentieth, twenty-first and twenty-second Annual Report of this department.

The period covered being the calendar years 1931, 1932, 1933 and 1934.

Respectfully,
THOMAS ALLEN,
State Inspector of Coal Mines.

PERSONNEL OF THE COAL MINE INSPECTION
DEPARTMENT

JAMES DALRYMPLE, Chief Inspector.....Denver, Colo.
 ADA R. TIBBITS, Chief Clerk.....Denver, Colo.
 MAX M. GREENWALD, Assistant Clerk.....Denver, Colo.

FIELD FORCE AND DISTRICTS

W. M. LAURIE, 512 Ash St., Trinidad, Colo.....District No. 1
 All the mines in Las Animas County excepting the Star,
 Torrid and Vickers mines, which are in District No. 2.

GEORGE C. DALRYMPLE, Box 645, Walsenburg, Colo.....District No. 2
 All mines in Huerfano and Fremont Counties and the
 three mines listed in District No. 1.

JAS. W. GRAHAM, Lafayette, Colo.....District No. 3
 All mines in Boulder, Moffat and Routt Counties.

HUGO H. MACHIN, 2447 5th St., Boulder, Colo.....District No. 4
 All mines in Elbert, El Paso, Jackson, Jefferson, Larimer
 and Weld Counties.

FINLAY McCALLUM, 348 White Ave., Grand Junction,
 ColoradoDistrict No. 5
 All mines in Archuleta, Delta, Garfield, Gunnison, La
 Plata, Mesa, Montezuma, Montrose, Ouray, Pitkin, Rio
 Blanco and San Miguel Counties.

FINANCIAL STATEMENT SHOWING RECEIPTS AND DISBURSEMENTS ANNUALLY, 1931-1934

| | 1931 | 1932 | 1933 | 1934 |
|-----------------------------------------------|--------------------|--------------------|--------------------|--------------------|
| RECEIPTS | | | | |
| Tax collected on coal mined..... | \$28,602.55 | \$23,159.21 | \$21,994.00 | \$20,022.08 |
| From sales of copies of coal mining laws..... | 89.25 | 48.75 | 43.65 | 76.75 |
| Refunds | | 107.39 | 178.82 | 19.17 |
| Balance brought forward from 1930..... | 11,241.43 | 6,497.73 | 2,923.93 | 1,585.10 |
| TOTAL | \$39,933.23 | \$29,813.08 | \$25,140.40 | \$21,703.10 |
| DISBURSEMENTS | | | | |
| Salaries for entire department..... | \$24,550.00 | \$21,243.03 | \$19,966.69 | \$15,114.18 |
| Fatal accident investigation..... | | 28.40 | 27.70 | |
| Railroad transportation | 195.30 | 199.15 | 223.27 | 199.74 |
| Automobile mileage..... | 4,317.22 | 2,934.04 | 1,841.38 | 1,902.80 |
| Board of Examiners..... | | | | 268.54 |
| Printing | 799.08 | | 148.53 | 154.79 |
| Stationery and office supplies..... | 275.20 | 210.85 | 163.71 | 183.89 |
| Postage | 522.67 | 667.34 | 367.33 | 322.44 |
| Telephone toll calls, entire department..... | 100.30 | 57.78 | 33.65 | 44.23 |
| Telegraph service | 11.54 | 20.98 | 18.30 | 10.85 |
| Instruments | 40.92 | 16.00 | 22.32 | 21.58 |
| Hotel | 834.00 | 434.75 | 336.15 | 343.75 |
| Meals | 1,388.30 | 678.65 | 305.22 | 368.25 |
| Miscellaneous | 400.97 | 302.18 | 101.05 | 167.63 |
| TOTAL | \$33,435.50 | \$26,888.15 | \$23,555.30 | \$19,102.67 |
| Balance on Hand, December 31, 1931..... | 1931 \$ 6,497.73 | 1932 \$ 2,923.93 | 1933 \$ 1,585.10 | 1934 \$ 2,600.43 |
| | | Dec. 31 | | |

INTRODUCTION

To the nineteenth, twentieth, twenty-first and twenty-second Annual Reports of the State Coal Mine Inspection Department is herewith submitted.

During these years complete office records were kept, but the reduced income from a much less than average production made it impossible to publish the regular Annual Report in the standard book forms used in all previous years.

The adoption of a license fee for all mines, together with a somewhat increased tonnage and better collection of the four-mill tax from which the major part of the income of the department is derived, have resulted in the accumulation of enough financial reserve to take care of the expense of this publication covering the four-year period from 1931 to 1934, inclusive.

This issue will bring the Coal Mining Department reports up to date. The tables herein contained are grouped together in consecutive years.

Some smaller changes have been made in assembling the records, but all important data necessary to make a complete record will be found in this volume.

The completeness of the information contained in this report reflects great credit on the clerical staff which had the diligence and interest in their work, with little hope that their efforts would be of any avail, to keep the detailed data so well arranged and filed as to make the publication readily possible after so long an interval of stagnation due to non-activity in the industry itself.

THOMAS ALLEN,
State Inspector of Coal Mines.

SUMMARY OF WORK DONE BY FIELD FORCE
DURING 1931-1934

| | 1931 | 1932 | 1933 | 1934 |
|----------------------------------------------|------------|------------|------------|------------|
| Total number of inspections made | 1,044 | 832 | 624 | 788 |
| Total number of mines inspected | 348 | 413 | 421 | 429 |
| Number of fatal accidents investigated | 29 | 29 | 20 | 21 |
| Number of inquests attended.... | 22 | 28 | 13 | 19 |
| Number of complaints investigated | 59 | 48 | 54 | 39 |
| Prosecutions | 3 | 2 | ----- | ----- |
| Miles travelled by automobile.. | 51,572 | 34,975 | 22,167 | 24,400 |
| Cost of Automobile travel..... | \$4,317.22 | \$2,939.04 | \$1,841.38 | \$1,902.80 |
| Cost of railroad travel..... | \$ 195.30 | \$ 199.15 | \$ 223.27 | \$ 199.74 |
| Number of scales inspections.... | 8 | 6 | 33 | 24 |

THOMAS ALLEN, E.M.

On October 20, 1934, Mr. Thomas Allen, of Grand Junction, Colorado, was provisionally appointed State Inspector of Coal Mines. He was certified to act permanently as Chief Inspector on November 23, 1934, after having passed highest in a competitive examination given by the Civil Service Commission.

Mr. Allen received his training as a mining engineer in England. He came to Wyoming in 1907 and was engaged as a coal mining engineer by several companies. His record shows great ability and practical experience in his line of work. There is no question but he will be an able administrator of the Coal Mine Inspection Department.

ADA R. TIBBITS,
Chief Clerk, State Inspector of Coal Mines.

TABLE A—1931-1932

SHOWING BY COMPANIES: Total number of tons produced and number of men employed; number of fatal accidents; number of non-fatal accidents.

| COMPANIES | Total Production, 1931 | Number of Men Employed, 1931 | Number of Fatal Acci- dents, 1931 | No. of Non- Fatal Acci- dents, 1931 | Total Production, 1932 | Number of Men Employed, 1932 | Number of Fatal Acci- dents, 1932 | No. of Non- Fatal Acci- dents, 1932 |
|--------------------------------------|------------------------------|---------------------------------|-----------------------------------------|-------------------------------------------|------------------------------|---------------------------------|-----------------------------------------|-------------------------------------------|
| Alnsworth, H. A..... | 696 | 2 | | | 679 | 3 | | |
| Alnsworth & Lewis..... | 95,913 | 143 | | 18 | 68,984 | 95 | | 5 |
| Allan, David..... | 67,412 | 57 | | 16 | 65,507 | 75 | | 16 |
| Altitude Fuel Co..... | | | | | 2,345 | 9 | | 2 |
| American Independent Coal Co..... | 82,076 | 144 | 1 | 7 | 2,000 | 8 | | 8 |
| American Smelting & Refining Co..... | 291 | 1 | | | 58,183 | 117 | | |
| Amos Coal Co..... | 486 | 2 | | | 423 | 1 | | |
| Anchor Coal Co..... | | | | | 823 | 2 | | |
| Anderson, Frank H..... | | | | | 70 | 1 | | |
| Anderson, Stuart..... | | | | | 265 | 2 | | |
| Antonita & Bellini..... | | | | | 315 | 2 | | |
| Appleton Coal Co..... | 1,082 | 2 | | | | | | |
| Archuleta, L., Coal Co..... | 35 | 2 | | | | | | |
| Audin, Clement..... | | | | | 1,636 | 3 | | |
| Ayshire Coal Co..... | | | | | 794 | 3 | | |
| Aztec Coal Mining Co..... | 17,771 | 49 | | 4 | 8,872 | 46 | | |
| Babson Coal Co..... | 2,042 | 3 | | | 1,550 | 3 | | |
| Balinton, John..... | 102 | 1 | | | | | | |
| Bald Coal Co..... | | | | | 1,009 | 10 | | 1 |
| Baldwin Fuel Co..... | 439 | 1 | | | 300 | 1 | | |
| Baldy Coal Co..... | 1,492 | 3 | | 1 | 1,770 | 3 | | 2 |

| | | | | | | |
|---------------------------|-----|---------|----|---------|-----|----|
| Barbour Coal Co. | 94 | 69,967 | 5 | 42,738 | 142 | 3 |
| Barker, Wright | 2 | 1,547 | | 2,696 | 5 | 2 |
| Barnell, Geo. M. | 5 | 4,193 | | 2,252 | 2 | |
| Batchelor, Chas. | 3 | 2,495 | | 426 | 3 | |
| Baudino & Co. | 2 | 275 | | 2,569 | | |
| Beach, Allan & Associates | 89 | 55,470 | 7 | 21,947 | 79 | 7 |
| Bear Canon Coal Co. | 63 | 29,908 | 9 | 45,411 | 66 | 13 |
| Bear River Coal Co. | 9 | 3,869 | 6 | 1,283 | 4 | 2 |
| Bear, Tony | 1 | 344 | | 887 | 10 | |
| Beer Coal Co. | 1 | 260 | | | | |
| Bellina & Antonita | 1 | 280 | | 234 | 2 | |
| Bellooli, Angelo | 2 | 344 | | 668 | 2 | |
| Bennett Coal Co. | 7 | 3,712 | 4 | 596 | 5 | |
| Bennett, N. D. | 45 | 21,152 | 6 | 2,171 | 4 | |
| Black Cat Coal Co. | 10 | 7,176 | 4 | 58,385 | 55 | 15 |
| Black Diamond Coal Co. | 3 | 299 | | 4,146 | 10 | |
| Black Hawk Coal Co. | 33 | 14,539 | 5 | 3,083 | 9 | 4 |
| Black Hawk Coal Co. | 2 | 542 | | 5,876 | 22 | 4 |
| Blue Bird Mines, Inc. | 2 | 650 | | | | |
| Blue Blaze Coal Co. | 148 | 251,064 | 24 | 332 | 3 | |
| Bluff Springs Leasing Co. | 2 | | | 207,515 | 120 | 39 |
| Blunt & Audin | 2 | | | 80 | 1 | |
| Boaglio, Bert | 2 | | | 161 | 1 | |
| Boaglio Coal Co. | 2 | | | 42 | 2 | |
| Boulder Valley Coal Co. | 148 | | | 577 | 5 | |
| Bowman, Guillermo | | | | | | |
| Boyd, Claude | | | | | | |
| Braden, Olney | 2 | 105 | | | | |
| Brewster Mining Co. | | | | | | |
| Brown, Arthur | 1 | 185 | | | | |
| Buddy Coal Co. | | | | | | |
| Buick Coal Co. | 3 | 545 | | 2,378 | 8 | |
| Burdick Coal Co. | 1 | 49 | | 400 | 2 | |
| Burro Creek Coal Co. | | | | | | |
| *Byrnes, Peter | | | | | | 1 |
| Cactus Coal Co. | | | | | | |
| Caddell Coal Co. | 9 | 908 | 1 | 230 | 3 | |
| Caldrirola Coal Co. | 4 | 794 | | 1,253 | 8 | 3 |
| Caliente Coal Co. | 140 | 52,647 | 11 | 16,033 | 18 | 5 |
| Calumet Fuel Co. | 350 | 286,851 | 31 | 39,251 | 147 | 24 |
| | | | | 192,261 | 283 | |

TABLE A—1931-1932—Continued

| COMPANIES | Total Production, 1931 | Number of Men Employed, 1931 | Number of Fatal Acci- dents, 1931 | No. of Non- Fatal Acci- dents, 1931 | Total Production, 1932 | Number of Men Employed, 1932 | Number of Fatal Acci- dents, 1932 | No. of Non- Fatal Acci- dents, 1932 |
|------------------------------|------------------------------|---------------------------------|-----------------------------------------|-------------------------------------------|------------------------------|---------------------------------|-----------------------------------------|-------------------------------------------|
| Canon Imperial Coal Co. | 9,386 | 26 | ..... | 10 | 1,624 | 24 | ..... | 4 |
| Canon Liberty Coal Co. | ..... | ..... | ..... | ..... | 349 | 6 | ..... | ..... |
| Canon Monarch Coal Co. | ..... | ..... | ..... | ..... | 13,505 | 25 | ..... | 5 |
| Canon Quality Coal Co. | 9,242 | 27 | ..... | 6 | 7,823 | 26 | ..... | 5 |
| Canon Reliance Coal Co. | 33,894 | 86 | ..... | 6 | 47,628 | 86 | ..... | 11 |
| Carbon Creek Coal Co. | 598 | 1 | ..... | ..... | 388 | 1 | ..... | ..... |
| Carestia, Paul | ..... | ..... | ..... | ..... | 650 | 1 | ..... | ..... |
| Cash & Carry Coal Co. | 200 | 2 | ..... | ..... | ..... | ..... | ..... | ..... |
| Castle Coal Co. | 5,587 | 7 | ..... | ..... | 4,653 | 6 | ..... | 1 |
| Castle Rock Coal Co. | 525 | 2 | 1 | ..... | 1,004 | 2 | ..... | ..... |
| Centennial Coal Co. | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| Chergo, Tom | 9,833 | 42 | ..... | ..... | ..... | ..... | ..... | ..... |
| Church & Schlegle | 75 | 1 | ..... | ..... | 130 | 1 | ..... | ..... |
| Clark Coal Co. | ..... | ..... | ..... | ..... | 43 | 3 | ..... | ..... |
| Clark Gulch Coal Co. | 3,451 | 4 | ..... | ..... | 1,809 | 3 | ..... | ..... |
| ..... | ..... | ..... | ..... | ..... | 364 | 3 | ..... | ..... |
| Clayton Coal Co. | 236,126 | 256 | ..... | 38 | 234,410 | 288 | 1 | 54 |
| Coal Gulch Coal Co. | 193 | 2 | ..... | ..... | 475 | 1 | ..... | ..... |
| Colona Coal Co. | 146 | 1 | ..... | ..... | ..... | ..... | ..... | ..... |
| Colorado Fuel & Iron Co. | 1,129,188 | 2,280 | 4 | 227 | 709,001 | 1,385 | 1 | 82 |
| Colorado Pinnacle Coal Co. | 1,008 | 6 | ..... | 1 | ..... | ..... | ..... | ..... |
| Colorado Springs Co. | 46,092 | 65 | ..... | 8 | 40,286 | 64 | ..... | 3 |
| Colorado & Utah Coal Co. | 103,020 | 160 | ..... | 17 | 101,824 | 133 | ..... | 31 |
| Conrad, D. M. | ..... | ..... | ..... | ..... | 371 | 1 | ..... | ..... |
| Consolidated Coal & Coke Co. | 106,705 | 109 | ..... | 6 | 102,684 | 117 | 1 | 7 |
| Converse Coal Co. | ..... | ..... | ..... | ..... | 461 | 1 | ..... | ..... |
| Cook, O. C. | 1,568 | 15 | ..... | ..... | 207 | 4 | ..... | ..... |
| Corley Coal Co. | 26,843 | 31 | ..... | 10 | 28,670 | 34 | ..... | 17 |

| | | | | | | | | | | | |
|---------------------------|--------|-----|--|--|--|---|--|--------|----|--|----|
| Cortez Coal Co. | 640 | 1 | | | | | | 300 | 2 | | |
| Costa Coal Co. | 487 | 2 | | | | | | 190 | 2 | | |
| Cox, T. L. | 26,785 | 55 | | | | 3 | | 22,545 | 28 | | 3 |
| Crested Butte Coal Co. | | | | | | | | | | | |
| Cribbs, J. D. | 29,305 | 182 | | | | 8 | | 26,493 | 71 | | 12 |
| Crumpley Coal Co. | 339 | 2 | | | | | | 110 | 2 | | |
| Crystal Creek Coal Co. | | | | | | | | 25 | 1 | | |
| Cuckoo Coal Co. | | | | | | | | 1,368 | 6 | | 1 |
| Cushman, G. B. | 174 | 2 | | | | | | | | | |
| Daisy Coal Co. | 377 | 3 | | | | | | 1,665 | 5 | | |
| Dale & Smith | 2,067 | 5 | | | | 2 | | 2,894 | 2 | | |
| Danville Coal Co. | 3,506 | 4 | | | | 1 | | | | | 2 |
| Darr, James & Son. | | | | | | | | | | | |
| Davich Coal Co. | 668 | 2 | | | | | | | | | |
| Davidson, Geo. W. | 74 | 1 | | | | | | 103 | 1 | | |
| De Boy, Frank | 853 | 2 | | | | | | 624 | 1 | | |
| Dedosso Coal Co. | 21,455 | 30 | | | | 6 | | 10,324 | 36 | | 1 |
| Delisa Canon Coal Co. | 7,090 | 18 | | | | 9 | | | | | |
| Dick Coal Co. | 25,751 | 32 | | | | 1 | | 17,557 | 22 | | 2 |
| Domestic Coal Co. | 3,874 | 4 | | | | 8 | | 5,172 | 9 | | 7 |
| Double Dick Coal Co. | 21,638 | 41 | | | | 8 | | 18,761 | 44 | | 6 |
| Dowhower, Jake | 31 | 1 | | | | | | | | | |
| Drennen Coal Co. | 1,694 | 3 | | | | | | 1,269 | 2 | | 4 |
| Dufur, Xavier | 165 | 1 | | | | | | 543 | 2 | | |
| Dunkle & Johnson | | | | | | | | 300 | 3 | | 1 |
| Durango Coal Co. | 931 | 6 | | | | | | 533 | 3 | | |
| Edna Coal Co. | 352 | 2 | | | | | | 34 | 1 | | |
| Elders Coal Co. | | | | | | | | 33 | 1 | | |
| Eldorado Coal Co. | 592 | 4 | | | | | | 5,099 | 6 | | |
| Electric Coal Co. | | | | | | | | | | | |
| Elkheart Coal Co. | 3,479 | 6 | | | | | | 2,263 | 4 | | 2 |
| Ellidge, Frank | 15,853 | 56 | | | | 8 | | 17,091 | 40 | | 3 |
| Elliott & Magee | | | | | | | | 100 | 2 | | |
| Empire Coal Mining Co. | 35,746 | 56 | | | | 5 | | 495 | 2 | | 4 |
| Estes Coal Co. | | | | | | | | 30,205 | 53 | | |
| Fairfield, C. F. | 1,864 | 2 | | | | | | 1,445 | 2 | | |
| Farmers Mutual Coal Co. | 400 | 1 | | | | | | 500 | 2 | | |
| Fawn Hollow Coal Co. | 785 | 4 | | | | | | 762 | 3 | | |
| Fidrizzi, Donald & Miller | 131 | 2 | | | | | | 175 | 10 | | 1 |

TABLE A—1931-1932—Continued

| COMPANIES | Total Production, 1931 | Number of Men Employed, 1931 | Number of Fatal Acci- dents, 1931 | No. of Non- Fatal Acci- dents, 1931 | Total Production, 1932 | Number of Men Employed, 1932 | Number of Fatal Acci- dents, 1932 | No. of Non- Fatal Acci- dents, 1932 |
|--------------------------|------------------------------|---------------------------------|-----------------------------------------|-------------------------------------------|------------------------------|---------------------------------|-----------------------------------------|-------------------------------------------|
| Fitzsimmons Coal Co..... | 499 | 2 | | | | | | |
| Ford, J. D..... | 129 | 1 | | | | | | |
| Foreman, Thos. D..... | 384 | 1 | | | 635 | 1 | | |
| Franceville Fuel Co..... | 5,283 | 15 | | 4 | | | | |
| Frisco Coal Co..... | 385 | 3 | | | 1,493 | 3 | | |
| Fruth, Geo..... | 649 | 9 | 1 | 2 | 1,382 | 9 | 1 | 1 |
| Fruth & Micheletti..... | 697 | 2 | | | 380 | 1 | | |
| Gabriella, Thos..... | 203 | 3 | | | | | | |
| Gallagher, J. C..... | | | | | 290 | 2 | | |
| Gantz, D..... | 104 | 2 | | | 194 | 2 | | |
| Gardner, Kenneth..... | | | | | | | | |
| Garfield Coal Co..... | 208 | 3 | | | 1,042 | 2 | | |
| Garhart, Ballard..... | 7,890 | 11 | | 2 | 6,340 | 10 | | 1 |
| Gelwick Coal Co..... | 7,027 | 7 | | 1 | 7,184 | 9 | | |
| Gem Coal Co..... | 821 | 2 | | | 402 | 3 | | |
| | | | | | 656 | 4 | | |
| George, S., & Sons..... | 1,234 | 10 | | | 1,258 | 4 | | |
| Gilmour Coal Co..... | 297 | 15 | | 1 | | | | |
| Gilson Asphaltum Co..... | 7,452 | 9 | | | 6,869 | 8 | | 2 |
| Giordino Coal Co..... | | | | | 493 | 3 | | |
| Giuliano & Carpina..... | | | | | 15,224 | 47 | | 13 |
| Giuliano Coal Co..... | 5,697 | 23 | | 9 | | | | |
| Glover, W. R..... | | | | | 10 | 1 | | |
| Golden Dawn Coal Co..... | 612 | 2 | | | | | | |
| Good Fuel Co..... | 18,313 | 26 | | 19 | 18,920 | 26 | | 13 |
| Gordon Coal Co..... | 37,145 | 58 | | 5 | 45,870 | 53 | | 2 |
| Grasso Coal Co..... | 176 | 2 | | | 473 | 2 | | |
| Gray, L. J..... | 321 | 1 | | 1 | 324 | 1 | | |

TABLE A—1931-1932—Continued

| COMPANIES | Total Production, 1931 | Number of Men Employed, 1931 | Number of Fatal Acci- dents, 1931 | No. of Non- Fatal Acci- dents, 1931 | Total Production, 1932 | Number of Men Employed, 1932 | Number of Fatal Acci- dents, 1932 | No. of Non- Fatal Acci- dents, 1932 |
|-------------------------------|------------------------------|---------------------------------|-----------------------------------------|-------------------------------------------|------------------------------|---------------------------------|-----------------------------------------|-------------------------------------------|
| Keystone Coal Co. | 44,414 | 83 | ..... | 11 | 39,184 | 69 | ..... | 8 |
| Klikus Coal Co. | ..... | ..... | ..... | ..... | 100 | 3 | ..... | ..... |
| King & Mitchell | ..... | ..... | ..... | ..... | 921 | 1 | ..... | ..... |
| Knapp Richard | 45 | 2 | ..... | ..... | ..... | ..... | ..... | ..... |
| Knox Coal Co. | 50 | 3 | ..... | 1 | ..... | ..... | ..... | ..... |
| Kojak Coal Co. | 60 | 9 | ..... | 4 | ..... | ..... | ..... | ..... |
| Kovak & Skoda | 939 | 2 | ..... | ..... | 2,673 | 3 | ..... | ..... |
| Ko-Z Coal Co. | 182 | 6 | ..... | ..... | 3,543 | 8 | ..... | ..... |
| Kurrie Coal Co. | 13,755 | 25 | ..... | 10 | 6,434 | 13 | ..... | 1 |
| Leader Coal Co. | ..... | ..... | ..... | ..... | 1,805 | 5 | ..... | ..... |
| Le Donne, Jas. | 500 | 3 | ..... | ..... | 1,165 | 4 | ..... | ..... |
| Leonard, M. F. | 114 | 1 | ..... | ..... | 175 | 1 | ..... | ..... |
| Leyden Lignite Co. | 114,825 | 82 | 1 | 18 | 109,557 | 87 | 1 | 17 |
| Liberty Bell Coal Co. | 678 | 2 | ..... | ..... | ..... | ..... | ..... | ..... |
| Liberty Coal Co. | 370 | 2 | ..... | ..... | ..... | ..... | ..... | ..... |
| Liley Coal & Land Co. | 43,753 | 42 | ..... | 5 | 38,479 | 39 | ..... | 5 |
| Lion Canon Coal Co. | 1,188 | 9 | ..... | ..... | ..... | ..... | ..... | ..... |
| Lippis & Bosco Coal Co. | 1,250 | 5 | ..... | ..... | 1,915 | 6 | ..... | ..... |
| Louisville-Lafayette Coal Co. | 55,434 | 58 | ..... | 14 | 91,987 | 82 | 2 | 21 |
| Lowe Coal Co. | ..... | ..... | ..... | ..... | 2,151 | 5 | ..... | ..... |
| Lowery & Spence | 400 | 2 | ..... | ..... | 315 | 1 | ..... | ..... |
| Lucia, B. C. | ..... | ..... | ..... | ..... | 282 | 2 | ..... | ..... |
| McBroom, Chas. | 130 | 1 | ..... | ..... | 96 | 1 | ..... | ..... |
| McCargish, Ed. | 97 | 1 | ..... | ..... | 114 | 1 | ..... | ..... |
| McCroskey, R. Z. | 106 | 1 | ..... | ..... | ..... | ..... | ..... | ..... |
| McDonald Coal Co. | ..... | ..... | ..... | ..... | 1,819 | 4 | ..... | 7 |
| McGimley, Wm. | 1,502 | 2 | ..... | ..... | 2,175 | 2 | ..... | ..... |

| | | | | | | | |
|-----------------------------|---------|-----|---------|---------|-----|---|----|
| McMillin, Geo. | 153,901 | 171 | 1 | 19 | 463 | 2 | 19 |
| McNeil Coal Corp. | 837 | 2 | 168 | 132,377 | 168 | 2 | 3 |
| McShane & Ritter | 35 | 4 | 1 | 1,363 | 3 | 1 | 3 |
| Mancos Coal & Fuel Co. | 153 | 1 | 896 | 896 | 4 | | |
| Mancos Hill Coal Co. | 871 | 2 | 623 | 623 | | | |
| Marriott, Wm. | 519 | 1 | 161 | 161 | 3 | | |
| Marsh Coal Co. | 1,589 | 5 | 636 | 636 | 1 | | |
| Martinez, Ralph | 3,840 | 8 | 305 | 305 | 1 | | |
| Martorano & Son | 80 | 2 | 129 | 129 | 2 | | |
| Mascot Coal, Oil & Clay Co. | 1,071 | 4 | 809 | 809 | 4 | | 1 |
| Mattivi & Son | 1,222 | 7 | 2,000 | 2,000 | 3 | 1 | |
| Medina, Pete | 11,544 | 25 | 14,111 | 14,111 | 29 | | 6 |
| Michelle, Pio | 122,071 | 190 | 1,803 | 1,803 | 6 | | |
| Midwest Red Glow Co. | 1,242 | 3 | 280 | 280 | 2 | | |
| Miller Coal Co. | 11,544 | 25 | 19,065 | 19,065 | 24 | | 1 |
| Minniqua Fuel Co. | 122,071 | 190 | 124,825 | 124,825 | 144 | | 38 |
| Moffat Coal Co. | 1,242 | 3 | 6,631 | 6,631 | 23 | | 1 |
| Monroe Coal Co. | 2,045 | 6 | 706 | 706 | 2 | | |
| Morgan Coal Co. | 170 | 2 | 1,546 | 1,546 | 6 | | |
| Morgan, Wm. | 204 | 3 | | | | | |
| Morris, Geo. W. | 65 | 4 | | | | | |
| Mountain States Fuel Co. | 1,078 | 2 | 514 | 514 | 2 | | |
| Mountain View Coal Co. | | | 220 | 220 | 2 | | |
| Mt. Lincoln Coal Co. | | | | | | | |
| Mundell, J. W. | 88 | 1 | | | | | |
| Murr, P. A. | 17,878 | 60 | 351 | 351 | 2 | | |
| Murrell Coal Co. | 303,450 | 302 | 3,224 | 3,224 | 70 | | 2 |
| Mutual Coal Co. | 2,340 | 8 | 165 | 165 | 2 | | |
| National Fuel Co. | 40,031 | 49 | 244,664 | 244,664 | 286 | | 48 |
| Newlan Creek Coal Co. | 127 | 2 | 3,395 | 3,395 | 10 | | 2 |
| New Ross Coal Co. | 40,031 | 49 | 2,858 | 2,858 | 7 | | |
| Nigerhead Mining Co. | | | 1,276 | 1,276 | 16 | | |
| Nix, C. E. | | | 41,127 | 41,127 | 53 | | 5 |
| North Park Coal Co. | | | 119 | 119 | 4 | | |
| North Star Coal Co. | | | 85 | 85 | 1 | | |
| Nossaman, W. J. | 12,016 | 31 | 3,317 | 3,317 | 23 | | 3 |
| Oakdale Coal Co. | 130 | 1 | 203 | 203 | 1 | | |
| Oberding, W. J. | 4,162 | 7 | 1,772 | 1,772 | 5 | | |
| Ohio Creek Coal Co. | | | | | | | |

TABLE A—1931-1932—Continued

| COMPANIES | Total Production, 1931 | Number of Men Employed, 1931 | Number of Fatal Acci- dents, 1931 | No. of Non- Fatal Acci- dents, 1931 | Total Production, 1932 | Number of Men Employed, 1932 | Number of Fatal Acci- dents, 1932 | No. of Non- Fatal Acci- dents, 1932 |
|-----------------------------------|------------------------------|---------------------------------|-----------------------------------------|-------------------------------------------|------------------------------|---------------------------------|-----------------------------------------|-------------------------------------------|
| O. K. Coal Co..... | 5,032 | 13 | ..... | ..... | 4,245 | 10 | ..... | 1 |
| Oliver Coal Co..... | 36,232 | 45 | ..... | 8 | 46,704 | 41 | ..... | 5 |
| Orecchio Coal Co..... | 8,063 | 13 | ..... | 6 | 7,694 | 25 | ..... | 4 |
| Overcamp, Walter..... | 72 | 2 | ..... | ..... | 497 | 3 | ..... | ..... |
| Owen, R..... | 1,641 | 3 | ..... | ..... | 49 | 1 | ..... | ..... |
| Owen, W. H..... | 566 | 2 | ..... | ..... | ..... | ..... | ..... | ..... |
| Pallsade Clean Heat Coal Co..... | 8,713 | 15 | ..... | ..... | 6,335 | 10 | ..... | 2 |
| Panther Coal Co..... | ..... | ..... | ..... | ..... | 25 | 3 | ..... | ..... |
| Paonla Farmers Coal Co..... | 3,298 | 3 | ..... | ..... | 1,859 | 3 | ..... | ..... |
| Payan Bros..... | 79 | 1 | ..... | ..... | ..... | ..... | ..... | ..... |
| Peachey Coal Co..... | 20,117 | 40 | ..... | 9 | 16,955 | 43 | ..... | 5 |
| Peacock Coal Co..... | 433 | 2 | ..... | ..... | 709 | 3 | ..... | ..... |
| Peerless Coal Co. (Boulder)..... | 783 | 4 | ..... | ..... | 1,738 | 5 | ..... | ..... |
| Peerless Coal Co. (La Plata)..... | ..... | ..... | ..... | ..... | 1,278 | 3 | ..... | ..... |
| Perfino Coal Co..... | 449 | 4 | ..... | ..... | 149 | 3 | ..... | 1 |
| Petry, S., Coal Co..... | 870 | 3 | ..... | ..... | ..... | ..... | ..... | ..... |
| Petry & Fiorini..... | ..... | ..... | ..... | ..... | 2,586 | 5 | ..... | ..... |
| Phelan & Shaver..... | 1,421 | 3 | ..... | ..... | 404 | 2 | ..... | ..... |
| Phillipp & Carnahan..... | ..... | ..... | ..... | ..... | 486 | 2 | ..... | ..... |
| Phoenix Fuel Co..... | 8,258 | 29 | ..... | 2 | 5,586 | 28 | ..... | ..... |
| Pickett, L. W..... | ..... | ..... | ..... | ..... | 792 | 4 | ..... | ..... |
| Pikes Peak Fuel Co..... | 241,655 | 168 | ..... | 19 | 215,441 | 160 | ..... | 23 |
| Pinnacle-Kemmerer Fuel Co..... | 25,767 | 75 | ..... | 8 | 31,891 | 63 | ..... | 7 |
| Pittsburgh Coal Co..... | 1,028 | 2 | ..... | 2 | 1,216 | 4 | ..... | ..... |
| Piacita Coal Mining Co..... | 10,175 | 16 | ..... | 1 | 1,852 | 9 | ..... | ..... |
| Pollard, C. F..... | 1,924 | 2 | ..... | ..... | 2,085 | 2 | ..... | ..... |

TABLE A—1931-1932—Continued

| COMPANIES | Total Production, 1931 | No. of Men Employed, 1931 | Number of Fatal Acci- dents, 1931 | No. of Non- Fatal Acci- dents, 1931 | Total Production, 1932 | No. of Men Employed, 1932 | Number of Fatal Acci- dents, 1932 | No. of Non- Fatal Acci- dents, 1932 |
|----------------------------------|------------------------------|------------------------------|-----------------------------------------|-------------------------------------------|------------------------------|------------------------------|-----------------------------------------|-------------------------------------------|
| Smith, H. J., Coal Co..... | 733 | 2 | ..... | ..... | ..... | ..... | ..... | ..... |
| South Canon Mine Leasing Co..... | 13,002 | 11 | ..... | 1 | ..... | ..... | ..... | ..... |
| South Park Coal Co..... | 200 | 4 | ..... | ..... | ..... | ..... | ..... | ..... |
| Sowers Coal Co..... | ..... | ..... | ..... | ..... | 105 | 4 | ..... | ..... |
| Spencer, Geo. S..... | 924 | 2 | ..... | ..... | 798 | 2 | ..... | ..... |
| Stakish, Geo..... | 380 | 2 | ..... | ..... | 105 | 2 | ..... | ..... |
| Standard Coal Co..... | 350 | 3 | ..... | ..... | 360 | 2 | ..... | ..... |
| Star Coal Co..... | 681 | 2 | ..... | ..... | 501 | 2 | ..... | ..... |
| States Hall Coal Co..... | 3,731 | 7 | ..... | ..... | 3,801 | 8 | ..... | 1 |
| Steel, Geo., & Co..... | ..... | ..... | ..... | ..... | 125 | 1 | ..... | ..... |
| Stokes, W. D..... | 2,343 | 6 | ..... | ..... | 2,043 | 4 | ..... | 1 |
| Stove Canon Coal Co..... | 2,462 | 4 | ..... | ..... | 2,458 | 4 | ..... | ..... |
| Storz Coal Co..... | ..... | ..... | ..... | ..... | 75 | 1 | ..... | ..... |
| Sunrise Coal Co..... | 1,850 | 15 | ..... | ..... | 2,370 | 7 | ..... | ..... |
| Sunshine Coal Co..... | 3,538 | 3 | ..... | ..... | 2,606 | 3 | ..... | ..... |
| Sunset Coal Co..... | 229 | 2 | ..... | ..... | 864 | 9 | ..... | ..... |
| Superior Fuel Co..... | 393 | 2 | ..... | ..... | 312 | 2 | ..... | ..... |
| Sweet Bros. Coal Co..... | 470 | 4 | ..... | ..... | 40 | 2 | ..... | ..... |
| Talarico Bros..... | ..... | ..... | ..... | ..... | 360 | 2 | ..... | ..... |
| Taylor & Bierce..... | 311 | 1 | ..... | ..... | 404 | 3 | ..... | ..... |
| Temple Fuel Co..... | 114,286 | 198 | 1 | 29 | 90,110 | 205 | 2 | 17 |
| Thomas Coal Co..... | 546 | 2 | ..... | ..... | 275 | 3 | ..... | ..... |
| Thomas Mining Co..... | 6,538 | 8 | ..... | ..... | 12,756 | 20 | ..... | 3 |
| Thor Fuel Co..... | 7,588 | 55 | ..... | 1 | 7,820 | 69 | ..... | ..... |
| Tipotsch, Frank..... | 552 | 1 | ..... | ..... | 482 | 1 | ..... | ..... |
| Torrid Coal Co..... | 12,568 | 27 | 1 | 6 | 6,585 | 10 | 1 | 3 |
| Triangle Coal Co..... | 5,049 | 7 | ..... | 1 | 3,037 | 5 | ..... | 1 |

| | | | | | | | | | |
|------------------------------|-----------|--------|----|-------|-----------|---------|-----|-------|-----|
| Trinidad Coal Co..... | 184 | 3 | | | | 150 | 2 | | |
| Trout Creek Coal Co..... | 359 | 1 | | | | 820 | 14 | | |
| Unity Coal Co..... | | 3 | | | | 1,577 | 2 | | |
| Ute Coal Co..... | 1,685 | 2 | | | | 1,335 | 3 | | |
| Valley View Coal Co..... | 1,022 | | | | | | | | |
| Veo, Louis..... | | | | | | 50 | 2 | | |
| Vickers Coal Co..... | 52,103 | 65 | | | 18 | 60,791 | 84 | 1 | 25 |
| Victor-American Fuel Co..... | 492,404 | 899 | 2 | | 114 | 403,244 | 773 | 3 | 124 |
| Vigil Coal Co..... | 87 | 2 | | | | 35 | 2 | | |
| Vowell, T. M..... | 200 | 2 | | | | 71 | 2 | | |
| Weber, J. E..... | 250 | 1 | | | | 128 | 1 | | |
| Weberkirch, Kaspar..... | 1,288 | 2 | | | | 160 | 1 | | |
| Wertz & Sunderland..... | 356 | 3 | | | | | | | |
| Western Hard Coal Co..... | | | | | | 2,757 | 16 | | |
| Western Star Coal Co..... | 451 | 4 | | | | 1,205 | 2 | | |
| White Ash Coal Co..... | | | | | | | | | |
| White Rose Coal Co..... | 2,146 | 4 | | | | 2,990 | 5 | | |
| Whitlock, E. E..... | 91 | 1 | | | | 260 | 3 | | |
| Willden Coal Co..... | 413 | 2 | | | | 210 | 2 | | |
| Williams Coal Co..... | 1,813 | 4 | | | | 243 | 2 | | |
| Willie Coal Co..... | | | | | | 1,251 | 3 | | |
| Wilson, James..... | 584 | 1 | | | | | | | |
| Winton Coal Co..... | 1,514 | 4 | | | | | | | |
| Wisconsin Coal Co..... | 836 | 3 | | | | 2,446 | 2 | | |
| Wood Coal Co..... | | | | | | 150 | 2 | | |
| Yellico, Joseph..... | | | | | | 287 | 2 | | |
| Yingling, Chas..... | 771 | 2 | | | | 498 | 2 | | |
| Ziesenis, Henry..... | 1,682 | 2 | | | | 423 | 1 | | |
| Zimmerman, E. H..... | 1,046 | 3 | | | | 1,426 | 2 | | |
| Total State of Colorado..... | 6,604,063 | 10,015 | 22 | 1,238 | 5,616,525 | 8,786 | 29 | 1,083 | |

*No operation reported.

†Cleaning up old mine.

| | | | | | | | |
|----------------------------------------|---------|-----|----|---------|-----|----|----|
| Banner Coal Co..... | 3,381 | 11 | 3 | 904 | 14 | 3 | 6 |
| Barbour Coal Co..... | 53,263 | 80 | 11 | 38,483 | 100 | 11 | |
| Barker, Wright..... | 2,693 | 2 | | 2,196 | 2 | | |
| Barnell, Geo. M..... | 1,902 | 5 | 1 | 1,910 | 4 | | |
| Bartello & Berte Coal Co..... | 140 | 2 | | | | | |
| Bassick Coal Co..... | 156 | 3 | | | | | |
| Bachelor, Chas..... | 331 | 1 | | 366 | 2 | | |
| Baudino & Co..... | 1,851 | 6 | | 1,540 | 3 | | |
| Bear Canon Coal Co..... | 8,835 | 32 | 1 | 14,358 | 40 | | |
| Bear River Coal Co..... | 31,843 | 61 | 13 | 42,276 | 52 | | 10 |
| Bear, Tony..... | 4,976 | 6 | | 7,110 | 11 | | |
| Beaudette Coal Co..... | 68 | 3 | | | | | |
| Beaver Valley Coal Co..... | | | | 200 | 4 | | |
| Bedlien, George..... | | | | 451 | 2 | | |
| Bellodi, Angelo..... | 186 | 1 | | | | | |
| Bellodi, Vasco..... | | | | 242 | 1 | | |
| Bennett Coal Co..... | 865 | 2 | | 390 | 1 | | |
| Benster, L. D..... | 75 | 4 | | 111 | 2 | | |
| Bierce, Jas. A..... | 648 | 2 | | 390 | 2 | | |
| Big Five Coal Co..... | 1,149 | 3 | | | | | |
| Big Tree Coal Co..... | 85 | 2 | | | | | |
| Black Cat Coal Co..... | 97 | 2 | | | | | |
| Black Diamond Coal Co. (Delta)..... | 614 | 4 | | 909 | 2 | | |
| Black Diamond Coal Co. (La Plata)..... | 1,508 | 3 | | 1,100 | 2 | | |
| Black Diamond Fuel Co..... | 54,005 | 67 | 14 | 1,068 | 3 | | 10 |
| Black, Earnest..... | | | | 48,378 | 58 | | |
| Black Hawk Coal Co..... | 4,516 | 9 | | 637 | 10 | | |
| Black King Coal Co..... | | | | 2,418 | 9 | | 2 |
| Blair Coal Co..... | 475 | 2 | 4 | 750 | 5 | | |
| Blue Flame Coal Co..... | 1,500 | 2 | | 240 | 1 | | |
| Blue Ribbon Coal Co..... | | | | | | | |
| Bluff Springs Leasing Co..... | 311 | 4 | | | | | |
| Boa-Glio Coal Co..... | 2,257 | 10 | | 7,807 | 28 | | |
| Bohlender Coal Co..... | 600 | 3 | | | | | |
| Boulder Canon Coal Co..... | | | | 1,440 | 7 | | |
| Boulder Valley Coal Co..... | 165,609 | 101 | 1 | 600 | 4 | | 18 |
| Bowman, Guiltermo..... | 326 | 2 | 25 | 161,148 | 96 | | |
| Brewster Mining Co..... | 421 | 2 | | 641 | 2 | | |
| Brook Canon Coal Co..... | | | | 18 | 1 | | |
| Brookside Coal Co..... | | | | 2,165 | 6 | | |
| Brown, George..... | | | | 3,993 | 11 | | |
| Buckeye Coal Co..... | 746 | 3 | | 1,412 | 2 | 1 | |
| | | | | 89 | 3 | | |

| | | | | | | | | |
|----------------------------------|---------|-------|-------|-------|---------|-------|-------|-------|
| Clayton Coal Co..... | 206,337 | 262 | ..... | 42 | 217,079 | 273 | 1 | 40 |
| Cline, Donald M..... | 418 | 1 | ..... | ..... | 297 | 3 | ..... | ..... |
| Close, Frank..... | 549 | 2 | ..... | ..... | 152 | 1 | ..... | ..... |
| Coal Gulch Coal Co..... | 54 | 1 | ..... | ..... | 37 | 1 | ..... | ..... |
| Colona Coal Co..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| Colorado Fuel & Iron Co..... | 760,006 | 1,140 | 1 | 80 | 797,944 | 1,083 | 1 | 118 |
| Colorado Pinnacle Coal Co..... | 74 | 2 | ..... | ..... | ..... | ..... | ..... | ..... |
| Colorado Springs Co..... | 38,856 | 60 | ..... | 6 | 34,765 | 63 | ..... | 10 |
| Colorado & Utah Coal Co..... | 117,825 | 129 | 1 | 32 | 102,173 | 148 | ..... | 42 |
| Community Coal Co..... | ..... | ..... | ..... | ..... | 389 | 1 | ..... | ..... |
| Consolidated Coal & Coke Co..... | 99,451 | 112 | ..... | 4 | 84,622 | 106 | ..... | 9 |
| Converse Coal Co..... | 509 | 1 | ..... | ..... | ..... | ..... | ..... | ..... |
| Cook, O. C..... | 181 | 2 | ..... | ..... | ..... | ..... | ..... | ..... |
| Corley Coal Co..... | 25,556 | 37 | ..... | 13 | 14,386 | 32 | ..... | 6 |
| Cortez Coal Co..... | ..... | ..... | ..... | ..... | 484 | 2 | ..... | ..... |
| Coryell, Frank..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| Cox, T. L..... | 218 | 1 | ..... | ..... | 8,382 | 8 | ..... | ..... |
| Cregger, W. M..... | 279 | 3 | ..... | ..... | 190 | 1 | ..... | ..... |
| Crested Butte Coal Co..... | 30,093 | 28 | 1 | 3 | 29,998 | 34 | ..... | 6 |
| Cribbs, E. B..... | ..... | ..... | ..... | ..... | 13,163 | 62 | ..... | 7 |
| Cribbs, J. D..... | 22,661 | 44 | ..... | 11 | ..... | ..... | ..... | ..... |
| Cuckoo Coal Co..... | 350 | 2 | ..... | ..... | ..... | ..... | ..... | ..... |
| Daisy Coal Co..... | 1,524 | 3 | ..... | ..... | 1,843 | 3 | ..... | ..... |
| Danville Coal Co..... | 1,382 | 4 | ..... | ..... | 2,289 | 3 | ..... | ..... |
| De Boy, Frank..... | 614 | 1 | ..... | ..... | 351 | 1 | ..... | ..... |
| Deldosso Coal Co..... | 12,901 | 27 | ..... | 3 | 9,497 | 24 | ..... | 3 |
| Deertrail Coal Co..... | 180 | 2 | ..... | ..... | ..... | ..... | ..... | ..... |
| Denny Coal Co..... | 380 | 4 | ..... | ..... | 213 | 2 | ..... | ..... |
| Diamond Coal Co..... | 399 | 2 | ..... | ..... | ..... | ..... | ..... | ..... |
| Dick Coal Co..... | 15,238 | 24 | ..... | 1 | 16,697 | 26 | ..... | 1 |
| Diehl, Peter..... | 10,539 | 60 | ..... | 5 | ..... | ..... | ..... | ..... |
| Di Giacomo Coal Co..... | 100 | 3 | ..... | ..... | ..... | ..... | ..... | ..... |
| Domestic Coal Co..... | 8,184 | 14 | ..... | 5 | 9,367 | 14 | ..... | 3 |
| Double Dick Coal Co..... | 6,992 | 45 | ..... | 4 | 19,949 | 26 | ..... | 10 |
| Drennan Coal Co..... | 603 | 2 | ..... | ..... | 673 | 2 | ..... | ..... |
| Dufur, Xavier..... | 446 | 1 | ..... | ..... | 159 | 1 | ..... | ..... |
| Durango Coal Co..... | 1,038 | 4 | ..... | ..... | 1,421 | 4 | ..... | ..... |
| Eagle Coal Co..... | ..... | ..... | ..... | ..... | 3,083 | 4 | ..... | ..... |

*No production.

TABLE A—1933-1934—Continued

| COMPANIES | Total Production, 1933 | No. of Men Employed, 1933 | Number of Fatal Acci- dents, 1933 | No. of Non- Fatal Acci- dents, 1933 | Total Production, 1934 | No. of Men Employed, 1934 | Number of Fatal Acci- dents, 1934 | No. of Non- Fatal Acci- dents, 1934 |
|-------------------------|------------------------------|------------------------------|-----------------------------------------|-------------------------------------------|------------------------------|------------------------------|-----------------------------------------|-------------------------------------------|
| Elders Coal Co. | 348 | 2 | ..... | ..... | 332 | 2 | ..... | ..... |
| Eldorado Coal Co. | 5,888 | 8 | ..... | ..... | 7,340 | 10 | ..... | ..... |
| Electric Coal Co. | 1,940 | 3 | ..... | ..... | 1,502 | 3 | ..... | ..... |
| Elledge, Frank | 186 | 2 | ..... | ..... | 209 | 2 | ..... | ..... |
| Empire Coal Mining Co. | 21,171 | 51 | ..... | 2 | 27,896 | 54 | ..... | 1 |
| Estes Bros. | 195 | 2 | ..... | ..... | 733 | 2 | ..... | ..... |
| Estes, Ora | ..... | ..... | ..... | ..... | 334 | 2 | ..... | ..... |
| Fairfield, C. F. | 141 | 1 | ..... | ..... | ..... | ..... | ..... | ..... |
| Farmers Mutual Coal Co. | 1,587 | 4 | ..... | ..... | 809 | ..... | ..... | ..... |
| Fawn Hollow Coal Co. | 2,807 | 7 | ..... | 1 | 4,090 | 12 | ..... | 1 |
| Fishers Peak Coal Co. | 242 | 1 | ..... | ..... | ..... | ..... | ..... | ..... |
| Florence Coal Co. | 1,385 | 4 | ..... | ..... | 1,309 | 3 | ..... | ..... |
| Fondis Coal Co. | 237 | 1 | ..... | ..... | 270 | 1 | ..... | ..... |
| Foreman, Thos. D. | 799 | 1 | ..... | ..... | 562 | 1 | ..... | ..... |
| Foster Bros. | 150 | 1 | ..... | ..... | ..... | ..... | ..... | ..... |
| Fredrizzi, Dan | ..... | ..... | ..... | ..... | 191 | 2 | ..... | ..... |
| Fremont Canon Coal Co. | ..... | ..... | ..... | ..... | 2,619 | 18 | ..... | ..... |
| Frisco Coal Co. | 2,289 | 5 | ..... | ..... | 2,014 | 5 | ..... | 3 |
| Frodsham, Vincent | ..... | ..... | ..... | ..... | 959 | 2 | ..... | ..... |
| Fruith & Micheletti | 390 | 2 | ..... | ..... | 673 | 2 | ..... | ..... |
| Gallegos, Gerio | ..... | ..... | ..... | ..... | 250 | 2 | ..... | ..... |
| Garcia, Benito | 300 | 1 | ..... | ..... | 150 | 1 | ..... | ..... |
| Garfield Coal Co. | 4,772 | 8 | ..... | 1 | 3,204 | 9 | ..... | ..... |
| Garvey Coal Co. | ..... | ..... | ..... | ..... | 640 | 2 | ..... | ..... |
| Gearhart, Ballard | 7,849 | 8 | ..... | ..... | 6,646 | 8 | ..... | 1 |
| Gelwick Coal Co. | 527 | 2 | ..... | ..... | 81 | 1 | ..... | ..... |
| Gem Coal Co. | 2,314 | 6 | ..... | ..... | 1,635 | 4 | ..... | ..... |
| George, Sam & Sons | 1,425 | 7 | ..... | ..... | 837 | 4 | ..... | ..... |
| Gilson Asphaltum Co. | 6,923 | 8 | ..... | ..... | 6,670 | 10 | ..... | 1 |

| | | | | | | | |
|-----------------------------------|---------|-----|---|----|--------|-----|----|
| Littleton Valley Coal Co..... | 7,067 | 22 | 3 | 12 | 2,871 | 30 | 5 |
| Llewellyn Coal Co..... | 672 | 2 | | | 929 | 3 | |
| Lloyd & Chappella..... | 79 | 2 | | | | | |
| Lone Pine Coal Co..... | 84,889 | 114 | 1 | 25 | 1,209 | 3 | 22 |
| Louisville-Lafayette Coal Co..... | 1,640 | 5 | | | 79,851 | 115 | |
| Lowe Coal Co..... | 47 | 1 | | | 1,208 | 5 | |
| Lucia, B. C..... | 8,473 | 12 | | | 176 | 2 | |
| McBroom, Chas..... | 160 | 1 | | | 37 | 1 | |
| McDonald, W. G..... | | | | | 13,090 | 11 | 1 |
| McFarlin, Joe..... | 1,699 | 2 | | | | | |
| McGinley, Wm..... | 3,124 | 6 | | | 1,659 | 2 | 1 |
| McNatt, J. Q..... | 128,407 | 169 | 1 | 22 | 674 | 3 | 1 |
| McNeil Coal Corp..... | 113 | 4 | | | 89,662 | 91 | 14 |
| McPherson, Guy M..... | 3,177 | 14 | | | 438 | 3 | |
| Major Coal Co..... | 235 | 2 | | | 5,935 | 9 | 5 |
| Mancos Coal Co..... | 1,309 | 4 | | | 972 | 2 | |
| Mancos Hill Coal Co..... | 348 | 2 | | | 1,950 | 6 | |
| Marinelli Bros..... | 150 | 1 | | | 138 | 2 | |
| Marrlott, Wm..... | | | | | 162 | 1 | |
| Marsh, Walter..... | | | | | 435 | 1 | |
| Martin Coal Co..... | 263 | 2 | | | 2,519 | 4 | |
| Martinez, Ralph..... | 342 | 2 | | | 190 | 1 | |
| Martorano & Son..... | 1,088 | 2 | | | 433 | 2 | |
| Mascot Coal, Oil & Clay Co..... | 1,600 | 7 | | | 508 | 2 | |
| Mattivi, Steve, & Sons..... | 294 | 2 | | | 1,639 | 12 | |
| Mesa County Coal Co..... | 12,056 | 27 | | | 633 | 3 | |
| Micheli, Pio..... | 1,531 | 5 | | | 13,471 | 23 | 2 |
| Midnight Coal Co..... | 17,612 | 28 | | | 471 | 3 | |
| Midwest Red Glow Coal Co..... | 93,387 | 167 | 1 | 28 | 1,778 | 5 | |
| Minnequa Fuel Co..... | 10,211 | 15 | | | 8,090 | 29 | 1 |
| Moffat Coal Co..... | 120 | 6 | | | | | |
| Monroe Coal Co..... | 775 | 2 | | | 97,984 | 182 | 10 |
| Morgan, Wm..... | 361 | 7 | | | 12,324 | 20 | 3 |
| Morris, Geo. W..... | | | | | 557 | 2 | |
| Moschetti, Tony..... | 90 | 3 | | | | | |
| Mt. Carbon Coal Co..... | 780 | 3 | | | 3,369 | 10 | 2 |
| Mt. Lincoln Coal Co..... | 667 | 3 | | | 150 | 2 | |
| Mundell, J. W..... | | | | | 1,041 | 2 | |
| Murrell, Jas..... | | | | | 551 | 2 | |

TABLE A—1933-1934—Continued

| COMPANIES | Total Production, 1933 | No. of Men Employed, 1933 | Number of Fatal Accl- dents, 1933 | No. of Non- Fatal Accl- dents, 1933 | Total Production, 1934 | No. of Men Employed, 1934 | Number of Fatal Accl- dents, 1934 | No. of Non- Fatal Accl- dents, 1934 |
|------------------------------|------------------------------|------------------------------|-----------------------------------------|-------------------------------------------|------------------------------|------------------------------|-----------------------------------------|-------------------------------------------|
| National Fuel Co. | 253,111 | 279 | ..... | 40 | 176,927 | 293 | 3 | 29 |
| Neish, W. K. | ..... | ..... | ..... | ..... | 5,741 | 5 | ..... | ..... |
| Niggerhead Mining Co. | 6,613 | 21 | ..... | ..... | 6,223 | 33 | ..... | ..... |
| Northern Coal Co. | ..... | ..... | ..... | ..... | 721 | 3 | ..... | ..... |
| North Park Coal Co. | 26,105 | 26 | 1 | 3 | 22,748 | 33 | ..... | 6 |
| Nossaman, W. J. | 164 | 1 | ..... | ..... | 250 | 2 | ..... | ..... |
| Oberding, Wm. J. | 208 | 1 | ..... | ..... | 200 | 1 | ..... | ..... |
| Ohio Creek Coal Co. | 1,163 | 4 | ..... | ..... | 1,209 | 3 | ..... | ..... |
| O. K. Coal Co. | 3,208 | 10 | ..... | 3 | 2,467 | 8 | ..... | 1 |
| Oliver Coal Co. | 49,528 | 54 | ..... | 4 | 50,837 | 55 | ..... | 6 |
| Orecchio Coal Co. | 5,756 | 13 | ..... | 2 | ..... | ..... | ..... | ..... |
| Overcamp, Walter | 354 | 3 | ..... | ..... | ..... | ..... | ..... | ..... |
| Owen, W. H. | 608 | 2 | ..... | ..... | 685 | 2 | ..... | ..... |
| Painton, F. D. | 776 | 2 | ..... | ..... | ..... | ..... | ..... | ..... |
| Pallsade Coal Co. | 4,707 | 10 | ..... | 2 | 5,090 | 16 | ..... | 2 |
| Paonia Farmers Coal Co. | 1,667 | 2 | ..... | ..... | 2,179 | 2 | ..... | ..... |
| Paramount Coal Co. | 517 | 4 | ..... | ..... | 1,839 | 4 | ..... | ..... |
| Pattison Coal & Oil Co. | 697 | 1 | ..... | ..... | ..... | ..... | ..... | ..... |
| Peachey Coal Co. | 17,504 | 46 | ..... | 2 | 14,431 | 37 | ..... | 2 |
| Peacock Coal Co. | 801 | 3 | ..... | ..... | 598 | 2 | ..... | ..... |
| Peerless Coal Co. (Boulder) | 5,907 | 7 | ..... | 6 | ..... | ..... | ..... | ..... |
| Peerless Coal Co. (La Plata) | 834 | 2 | ..... | ..... | 731 | 2 | ..... | 2 |
| Perino Coal Co. | 1,200 | 6 | ..... | ..... | 2,098 | 4 | ..... | 2 |
| Petry, Sam. | 3,055 | 6 | ..... | ..... | 1,850 | 6 | ..... | ..... |
| PheLAN & Shaver | 635 | 2 | ..... | ..... | 1,209 | 2 | ..... | ..... |
| Phoenix Fuel Co. | 6,613 | 43 | ..... | 2 | 4,076 | 44 | ..... | ..... |
| Pickett, L. W. | 825 | 2 | ..... | ..... | ..... | ..... | ..... | ..... |
| Pikes Peak Fuel Co. | 206,710 | 161 | 1 | 27 | 208,677 | 162 | 2 | 30 |

TABLE A—1933-1934—Continued

| COMPANIES | Total Production, 1933 | No. of Men Employed, 1933 | Number of Fatal Acci- dents, 1933 | No. of Non- Fatal Acci- dents, 1933 | Total Production, 1934 | No. of Men Employed, 1934 | Number of Fatal Acci- dents, 1934 | No. of Non- Fatal Acci- dents, 1934 |
|-----------------------------------|------------------------------|------------------------------|-----------------------------------------|-------------------------------------------|------------------------------|------------------------------|-----------------------------------------|-------------------------------------------|
| Sadvar, Mathew..... | 100 | 1 | | | | | | |
| Salvador Coal Co..... | 89 | 1 | | | | | | |
| Sanchez, Demetro..... | 50 | 1 | | | 720 | 2 | | |
| Santa Fe Coal Co..... | 985 | 4 | | | 1,041 | 4 | | |
| Sarcillo Coal Co..... | 42 | 2 | | | | | | |
| Shamrock Coal Co. (Huerfano)..... | 73,754 | 87 | 1 | 12 | 650 | 2 | | 7 |
| Shamrock Coal Co. (Weld)..... | 45 | 1 | | | 78,086 | 84 | | |
| Shea, D. F..... | | | | | 1,316 | 3 | | |
| Shelton, H. D..... | | | | | 30 | 1 | | |
| Slagle, E. G..... | | | | | 377 | 2 | | |
| Slama, John..... | 23 | 3 | | | | | | |
| Sloan, J. D..... | 172 | 2 | | | | | | |
| South Canon Mine Leasing Co..... | 2,441 | 14 | | 1 | 1,436 | 10 | | |
| Sowers Coal Co..... | 1,104 | 8 | | | 880 | 2 | | |
| Spencer, Geo. S..... | 762 | 2 | | | 521 | 1 | | |
| Spring Canon Coal Co..... | | | | | 1,139 | 3 | | 4 |
| Stakish, Geo..... | | | | | 57 | 1 | | |
| Standard Coal Co..... | 152 | 1 | | | 100 | 1 | | |
| States Hall Coal Co..... | 3,048 | 7 | | 1 | 1,803 | 5 | | |
| Steel, Geo., & Co..... | 47 | 2 | | | 739 | 3 | | |
| Stokes, W. D..... | 1,770 | 4 | | | 938 | 3 | | |
| Stove Canon Coal Co..... | 2,836 | 4 | | | 1,625 | 3 | | |
| Strawberry Coal Co..... | 800 | 3 | | | 1,055 | 5 | | |
| Streeman, J..... | | | | | 3,701 | 9 | | |
| Sunrise Coal Co..... | 900 | 4 | | | 659 | 2 | | |
| Sunshine Coal Co..... | 2,421 | 3 | | | 2,033 | 2 | | |
| Superior Fuel Co..... | 946 | 3 | | | 1,007 | 2 | | |
| Saviglio, J. F..... | 892 | 3 | | | | | | |
| Temple Fuel Co..... | 67,206 | 135 | | 19 | 64,326 | 109 | 1 | 11 |
| Thomas Coal Co..... | 1,182 | 4 | | | 1,661 | 4 | | |

TABLE B.
NUMBER INJURED IN COAL MINES DURING THE CALENDAR YEARS ENDING DECEMBER 31, 1931-1934

| CAUSES | Permanent Disability | | | | TEMPORARY DISABILITY | | | | Total Injuries | | | | | | | | | | | | | |
|----------------------------------------------------------------|----------------------|------|---------|------|-----------------------------|------|-----------------------------|------|----------------|------|------|------|------|------|------|------|-------|-------|-------|-----|---|--|
| | Total | | Partial | | Time Lost More Than 14 Days | | Time Lost Less Than 14 Days | | 1931 | | 1932 | | 1933 | | 1934 | | | | | | | |
| | 1931 | 1932 | 1933 | 1934 | 1931 | 1932 | 1933 | 1934 | 1931 | 1932 | 1933 | 1934 | 1931 | 1932 | 1933 | 1934 | | | | | | |
| Underground: | | | | | | | | | | | | | | | | | | | | | | |
| 1. Falls of roof (coal, rock, etc.)..... | | | | | 2 | 1 | 1 | 1 | 165 | 127 | 130 | 120 | 72 | 59 | 43 | 38 | 237 | 188 | 174 | 159 | | |
| 2. Falls of face or pillar coal..... | | | | | 1 | 1 | 3 | | 99 | 70 | 54 | 94 | 40 | 58 | 47 | 33 | 139 | 129 | 101 | 127 | | |
| 3. Mine cars and locomotives..... | | | | | 1 | 1 | 3 | | 162 | 130 | 150 | 139 | 70 | 84 | 60 | 44 | 233 | 215 | 213 | 186 | | |
| 4. Gas explosions and burning gas..... | | | | | 1 | 1 | | | 1 | 3 | 1 | 1 | 1 | 1 | 1 | | 1 | 5 | 2 | | | |
| 5. Coal-dust explosions (including gas and dust combined)..... | | | | | | | | | | | | | 1 | | | | | | | | | |
| 6. Explosives..... | | | | | | | | | 1 | 6 | 2 | 3 | 2 | | | | | | | | | |
| 7. Suffocation from mine gas..... | | | | | | | | | | | | | | | 1 | | | | | | | |
| 8. Electricity..... | | | | | | | | | 1 | 2 | 1 | 3 | 2 | 3 | 1 | 2 | 3 | 5 | 5 | 5 | 5 | |
| 9. Animals..... | | | | | | | | | 15 | 9 | 16 | 15 | 18 | 10 | 10 | 12 | 33 | 27 | 26 | 24 | | |
| 10. Mining machines..... | | | | | 6 | 1 | 4 | | 65 | 46 | 54 | 45 | 28 | 27 | 16 | 19 | 99 | 74 | 74 | 64 | | |
| 11. Mines fires (burned, suffocated, etc.)..... | | | | | | | | | 2 | 2 | 183 | 160 | 170 | 184 | 170 | 118 | 352 | 354 | 352 | 290 | | |
| 12. Other causes..... | 1 | | | | 2 | 1 | 3 | | 2 | 195 | 170 | 170 | 184 | 170 | 189 | 118 | 382 | 354 | 352 | 290 | | |
| In Shaft: | | | | | | | | | | | | | | | | | | | | | | |
| 13. Falling down shafts or slopes..... | | | | | | | | | | 2 | | | | | 2 | | | | | | | |
| 14. Objects falling down shafts or slopes..... | | | | | | | | | 1 | 1 | | | | | | | | | | | | |
| 15. Cages or skips..... | | | | | | | | | 1 | 5 | 1 | 1 | | | | | | | | | | |
| 16. Other causes..... | | | | | | | | | 1 | 2 | 1 | 1 | | | | | | | | | | |
| Total number injured in mine..... | 1 | | | | 9 | 7 | 11 | 6 | 708 | 586 | 573 | 589 | 418 | 422 | 371 | 266 | 1,136 | 1,015 | 955 | 861 | | |
| On Surface: | | | | | | | | | | | | | | | | | | | | | | |
| 17. Mine cars and mine locomotives..... | | | | | 1 | 1 | | | 6 | 7 | 6 | 12 | 6 | 2 | 7 | 6 | 13 | 10 | 13 | 18 | | |
| 18. Electricity..... | | | | | | | | | | | | | | | | | | | | | | |
| 19. Machinery..... | | | | | 1 | | | | 13 | 16 | 17 | 20 | 8 | 8 | 9 | 3 | 22 | 24 | 26 | 23 | | |
| 20. Boiler explosions or bursting steam pipes..... | | | | | | | | | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 4 | 3 | 1 | 2 | | |
| 21. Railway cars and locomotives..... | | | | | | | | | | | | | 2 | | | | | | | | | |
| 22. Other causes..... | | | | | 2 | | | | 26 | 16 | 21 | 35 | 30 | 14 | 25 | 19 | 58 | 30 | 46 | 55 | | |
| Total number injured on the surface..... | | | | | 4 | 1 | | | 49 | 41 | 44 | 71 | 49 | 26 | 43 | 30 | 102 | 68 | 87 | 101 | | |
| Grand Total | 1 | | | | 13 | 8 | 11 | 6 | 757 | 627 | 617 | 660 | 467 | 448 | 414 | 296 | 1,238 | 1,083 | 1,042 | 962 | | |

A. PERMANENT TOTAL DISABILITY. Loss of both legs or arms, one leg and one arm, total loss of eyesight, paralysis or other condition permanently incapacitating workman from doing any work of a gainful occupation.

B. PERMANENT PARTIAL DISABILITY. Loss of one foot, leg, hand, eye, one or more fingers, one or more toes, and dislocation where ligaments are severed, or any other injury known in surgery to be permanent partial disability.

C. In this column include only accidents which cause a loss of time more than the balance of the day or shift upon which the accident occurred.

TABLE C.
MINE FATALITIES BY CAUSES, 1931-1934

| CAUSES | Years | | | |
|--------------------------------------------------------------------|-------|------|------|------|
| | 1931 | 1932 | 1933 | 1934 |
| Underground: | | | | |
| 1. Falls of roof (coal, rock, etc.)..... | 4 | 8 | 7 | 8 |
| 2. Falls of face or pillar coal..... | 5 | 4 | 3 | 5 |
| 3. Mine cars and locomotives..... | 9 | 9 | 3 | 2 |
| 4. Gas explosions and burning gas..... | .... | 1 | .... | .... |
| 5. Coal-dust explosions (including gas and dust combined) | 1 | .... | .... | .... |
| 6. Explosives ..... | .... | 1 | .... | .... |
| 7. Suffocation from mine gases..... | .... | 2 | 2 | 1 |
| 8. Electricity (shock or burns)..... | .... | 1 | 2 | 3 |
| 9. Animals ..... | .... | 1 | .... | .... |
| 10. Mining machines ..... | .... | .... | .... | .... |
| 11. Mine fires (burned, suffocated, etc.)..... | .... | .... | .... | .... |
| 12. Other causes ..... | .... | .... | .... | 1 |
| Shaft: | | | | |
| 13. Falling down shafts or slopes..... | .... | 1 | .... | .... |
| 14. Objects falling down shafts or slopes..... | .... | .... | .... | .... |
| 15. Cages or skips..... | .... | .... | .... | .... |
| 16. Other causes ..... | .... | .... | .... | .... |
| Total underground..... | 19 | 28 | 17 | 20 |
| Surface: | | | | |
| 17. Mine cars and mine locomotives..... | .... | .... | .... | .... |
| 18. Electricity (shock or burns)..... | .... | .... | .... | .... |
| 19. Machinery | 2 | .... | 1 | 1 |
| 20. Boiler explosions or bursting steam pipes..... | .... | .... | .... | .... |
| 21. Railway cars and locomotives..... | .... | .... | .... | .... |
| 22. Other causes ..... | .... | 1 | 2 | .... |
| Total | 2 | 1 | 3 | 1 |
| Grand total | 22 | 29 | 20 | 21 |

TABLE D—1931.

SHOWING BY COUNTIES, MINES OPERATED, NAME OF OPERATOR AND ADDRESS OF MINE, CHARACTER OF COAL, NUMBER OF DAYS WORKED, AVERAGE NUMBER OF MEN EMPLOYED, TOTAL NUMBER OF TONS OF COAL PRODUCED IN 1931 AND CAPACITY OF MINE PER DAY IN TONS.

ARCHULETA COUNTY

| Name of Mine | Name of Company | Mine Post Office | Character of Coal | Number of Days Worked | Average No. of Men Employed | Total Number of Tons Produced | Capacity of Mine per Day, Tons |
|--------------------|-------------------------|----------------------|---------------------|-----------------------|-----------------------------|-------------------------------|--------------------------------|
| Cox..... | T. L. Cox..... | Pagosa Springs..... | Bituminous..... | 94 | 2 | 487 | ..... |
| Bellino..... | Bellino & Antonita..... | Pagosa Junction..... | Sub-bituminous..... | 150 | 1 | 344 | ..... |
| McBroom..... | Chas. McBroom..... | Dyke..... | Bituminous..... | 53 | 1 | 130 | ..... |
| Francis..... | Payan Bros..... | Arboles..... | Bituminous..... | 65 | 1 | 79 | ..... |
| Montezuma Sun..... | Leon Archuleta..... | Pagosa Springs..... | Bituminous..... | 20 | 2 | 35 | ..... |
| Fitzgerald..... | A. L. Harrington..... | Arboles..... | Bituminous..... | 15 | 1 | 31 | ..... |
| Number | of Mines operated: 6 | | | 63.8 | 8 | 1,106 | |

BOULDER COUNTY

| | | | | | | | |
|--------------------------|-----------------------------------|-----------------|---------------------|-------|-----|---------|------|
| Industrial..... | Rocky Mountain Fuel Co..... | Superior..... | Sub-bituminous..... | 167.2 | 165 | 119,020 | 800 |
| Vulcan..... | Rocky Mountain Fuel Co..... | Lafayette..... | Sub-bituminous..... | 237.3 | 72 | 59,188 | 250 |
| Standard..... | Rocky Mountain Fuel Co..... | Lafayette..... | Sub-bituminous..... | 148.3 | 41 | 38,941 | 250 |
| Monarch No. 2..... | National Fuel Co..... | Broomfield..... | Sub-bituminous..... | 289.9 | 114 | 113,695 | 675 |
| Crown..... | David Allan..... | Gorham..... | Sub-bituminous..... | 261 | 57 | 67,412 | 500 |
| Hi-Way..... | Louisville-Lafayette Coal Co..... | Broomfield..... | Sub-bituminous..... | 238.2 | 58 | 55,434 | 600 |
| Black Diamond..... | Black Diamond Fuel Co..... | Boulder..... | Sub-bituminous..... | 133 | 18 | 11,315 | 150 |
| Black Diamond No. 2..... | Black Diamond Fuel Co..... | Lafayette..... | Sub-bituminous..... | 122 | 27 | 9,837 | 300 |
| Centennial..... | Centennial Coal Co..... | Louisville..... | Sub-bituminous..... | 58 | 42 | 9,833 | 200 |
| High View..... | High View Coal Co..... | Gorham..... | Sub-bituminous..... | 228 | 7 | 5,564 | 2340 |
| Pluto..... | Domestic Fuel Co..... | Boulder..... | Sub-bituminous..... | 129 | 4 | 3,874 | 50 |
| Sunrise..... | Sunrise Coal Co..... | Gorham..... | Sub-bituminous..... | 121 | 15 | 1,850 | 10 |

BOULDER COUNTY—Continued

| | | | | | | | |
|-------------------|-------------------------|-----------------|---------------------|-------|-----|---------|----|
| Pittsburgh..... | Pittsburgh Coal Co..... | Gorham..... | Sub-bituminous..... | 133 | 2 | 1,028 | 10 |
| New Ross..... | New Ross Coal Co..... | Gorham..... | Sub-bituminous..... | 117 | 4 | 868 | 10 |
| Gorham No. 2..... | Eldorado Coal Co..... | Gorham..... | Sub-bituminous..... | 56 | 4 | 592 | 20 |
| Peerless..... | Gilmour Coal Co..... | Gorham..... | Sub-bituminous..... | 15 | 15 | 297 | 15 |
| Pine Cliff..... | Tom Gabriella..... | Gorham..... | Sub-bituminous..... | 27 | 3 | 203 | 10 |
| Fireside..... | KOZ Coal M. Co..... | Louisville..... | Sub-bituminous..... | 30 | 6 | 182 | 6 |
| Number | of Mines operated: 18. | | | 190.2 | 654 | 499,133 | |

DELTA COUNTY

| | | | | | | | |
|-------------------|-----------------------------|----------------|----------------------|-------|----|--------|-------|
| King..... | Juanita Coal & Coke Co..... | Bowie..... | Bituminous..... | 54 | 44 | 33,597 | 1,000 |
| Green Valley..... | Green Valley Coal Co..... | Cedaredge..... | Semi-bituminous..... | 289 | 6 | 6,344 | ..... |
| Red Canon..... | Red Canon Coal Co..... | Cedaredge..... | Semi-bituminous..... | 260.9 | 5 | 5,134 | 50 |
| Paonia..... | Paonia Farmers Coal Co..... | Paonia..... | Semi-bituminous..... | 171 | 3 | 3,298 | ..... |
| Independent..... | Independent Coal Co..... | Cedaredge..... | Semi-bituminous..... | 230 | 3 | 2,580 | 35 |
| States..... | States-Hall Coal Co..... | Cedaredge..... | Semi-bituminous..... | 203 | 3 | 2,014 | 50 |
| Red Mountain..... | States-Hall Coal Co..... | Cedaredge..... | Semi-bituminous..... | 240 | 4 | 1,717 | 40 |
| Owens..... | R. Owens & Sons..... | Hotchkiss..... | Semi-bituminous..... | 200 | 3 | 1,641 | 2 |
| Winton..... | Winton Coal Co..... | Austin..... | Bituminous..... | 120 | 3 | 896 | 15 |
| Geilwick..... | Geilwick Coal Co..... | Hotchkiss..... | Bituminous..... | 241 | 2 | 821 | 4 |
| Burdick..... | Burdick Coal Co..... | Hotchkiss..... | Bituminous..... | 200 | 3 | 545 | 12 |
| Fitzsimmons..... | E. A. Fitzsimmons..... | Paonia..... | Sub-bituminous..... | 83 | 2 | 499 | 2 |
| Western Star..... | Western Star Mine Co..... | Cedaredge..... | Semi-bituminous..... | 70 | 4 | 451 | ..... |
| Bennett..... | W. D. Bennett..... | Paonia..... | Semi-bituminous..... | 110 | 2 | 280 | ..... |
| Leroux Creek..... | T. M. Vowell..... | Lazear..... | Semi-bituminous..... | 90 | 2 | 200 | 5 |
| Converse..... | Converse Coal Co..... | Paonia..... | Semi-bituminous..... | 54 | 1 | 185 | 25 |
| Number | of Mines operated: 16. | | | 123.6 | 90 | 60,202 | |

ELBERT COUNTY

| | | | | | | | |
|-------------|---------------------------------|---------------|---------------------|-------|---|-------|-----|
| Mascot..... | Mascot Coal, O. & C. P. Co..... | Matheson..... | Sub-bituminous..... | 171 | 5 | 1,589 | 100 |
| Wright..... | Wright Barker..... | Matheson..... | Sub-bituminous..... | 180 | 2 | 1,547 | 50 |
| Number | of Mines operated: 2. | | | 173.6 | 7 | 3,136 | |

TABLE D—1931—Continued.

EL PASO COUNTY

| Name of Mine | Name of Company | Mine Post Office | Character of Coal | Number of Days Worked | Average No. of Men Employed | Total Number of Tons Produced | Capacity of Mine per Day, Tons |
|----------------------|---------------------------|-----------------------|---------------------|-----------------------|-----------------------------|-------------------------------|--------------------------------|
| Pikeview..... | Pikes Peak Fuel Co..... | Pikeview..... | Sub-bituminous..... | 227 | 168 | 241,655 | 2,000 |
| City Coal Mines..... | Colorado Springs Co..... | Colorado Springs..... | Sub-bituminous..... | 226 | 65 | 46,092 | 500 |
| Corley..... | Corley Coal Co..... | Colorado Springs..... | Sub-bituminous..... | 257 | 31 | 26,843 | 300 |
| Kurie..... | Kurie Coal Co..... | Colorado Springs..... | Sub-bituminous..... | 218 | 25 | 13,755 | 300 |
| Jimmy Camp..... | Thomas Mining Co..... | Colorado Springs..... | Sub-bituminous..... | 230.4 | 8 | 6,538 | 100 |
| Franceville..... | Franceville Fuel Co..... | Colorado Springs..... | Sub-bituminous..... | 159 | 15 | 5,283 | 100 |
| Climax..... | Danville Coal Co..... | Colorado Springs..... | Sub-bituminous..... | 220 | 4 | 3,506 | ..... |
| Drennan..... | Drennan Coal Co..... | Colorado Springs..... | Sub-bituminous..... | 278 | 3 | 1,694 | 10 |
| Golden Dawn..... | Golden Dawn Coal Co..... | Yoder..... | Sub-bituminous..... | 248 | 2 | 612 | 5 |
| Number | of Mines operated: 9..... | ..... | ..... | 226.4 | 321 | 345,978 | ..... |

FREMONT COUNTY

| | | | | | | | |
|--------------------------|-------------------------------|-----------------|-----------------|-------|-----|---------|-------|
| Chandler..... | Victor-American Fuel Co..... | Chandler..... | Bituminous..... | 157 | 297 | 129,008 | 1,000 |
| Rockvale No. 2..... | John D. Cribbs (Lessee)..... | Rockvale..... | Bituminous..... | 84 | 182 | 29,305 | 800 |
| Rockvale No. 3..... | Colorado Fuel & Iron Co..... | Canon City..... | Bituminous..... | 240.5 | 36 | 40,786 | 250 |
| Canon (Wolf Park)..... | Canon-Reliance Coal Co..... | Canon City..... | Bituminous..... | 104 | 86 | 39,894 | 500 |
| Double Dick..... | Double Dick Coal Co..... | Coal Creek..... | Bituminous..... | 266 | 41 | 21,638 | 125 |
| Bluff Springs No. 2..... | Bluff Springs Leasing Co..... | Florence..... | Bituminous..... | 211 | 33 | 14,539 | ..... |
| Griffiths..... | Griffiths Coal Co..... | Canon City..... | Bituminous..... | 217 | 16 | 13,973 | 90 |
| Canon Imperial..... | Canon Imperial Coal Co..... | Florence..... | Bituminous..... | 26 | 26 | 9,368 | ..... |
| South Magnet..... | Canon Quality Coal Co..... | Florence..... | Bituminous..... | 225 | 27 | 9,242 | 100 |
| Brookside..... | Orechio Coal M. Co..... | Florence..... | Bituminous..... | 255.5 | 13 | 8,063 | 30 |
| Cuckoo..... | Delisa Canon Coal Co..... | Rockvale..... | Bituminous..... | 220 | 18 | 7,090 | 15 |
| Rocchlo..... | Rocchlo Coal Co..... | Coal Creek..... | Bituminous..... | 238 | 11 | 6,989 | 35 |

FREMONT COUNTY—Continued

| | | | | | | |
|----------------------|-------------------------------|-----------------|-------|-----|---------|-------|
| New Fremont..... | Giuliano Coal Co..... | Coal Creek..... | 217 | 23 | 5,697 | 20 |
| Jack O' Lantern..... | Beer Coal Co..... | Florence..... | 217 | 9 | 3,869 | 30 |
| Newlan Creek..... | Newlan Creek Coal Co..... | Florence..... | 241 | 8 | 2,340 | 10 |
| Canon District..... | Lippis & Bosco..... | Canon City..... | 74 | 5 | 1,250 | 20 |
| Petry..... | Sam Petry..... | Florence..... | 75 | 3 | 870 | ..... |
| Caldirola..... | Caldirola Coal Co..... | Florence..... | 40 | 9 | 794 | 32 |
| Superior..... | H. J. Smith..... | Florence..... | 180.5 | 2 | 733 | ..... |
| Willie No. 1..... | Willie Coal Co..... | Florence..... | 146 | 1 | 584 | ..... |
| Willie No. 2..... | James Brothers..... | Florence..... | 140 | 2 | 600 | 5 |
| North Magnet..... | Perino Coal Co..... | Florence..... | 40 | 4 | 449 | 10 |
| Brewster..... | Allan Beach & Associates..... | Florence..... | 55 | 2 | 275 | ..... |
| Number | of Mines operated : 23..... | ..... | 157.1 | 854 | 347,356 | ..... |

GARFIELD COUNTY

| | | | | | | |
|------------------|------------------------------|-------------------------|-------|----|--------|-------|
| South Canon..... | South Canon M. Leas, Co..... | Glenwood Springs..... | 252 | 11 | 13,002 | 75 |
| Carbonera..... | Gilson Asphatum Co..... | Carbonera via Mack..... | 166 | 9 | 7,452 | 60 |
| Estes..... | Estes Coal Co..... | Rifle..... | 247 | 2 | 1,864 | ..... |
| Ziesenliss..... | Henry Ziesenliss..... | Rifle..... | 161 | 2 | 1,682 | 30 |
| Rauman..... | Rauman Coal Co..... | Rifle..... | 242 | 2 | 1,587 | 25 |
| North Canon..... | Rifle Coal Mines, Inc..... | Rifle..... | 184 | 2 | 1,413 | 20 |
| Silt..... | Morgan Coal Co..... | Rifle..... | 185.5 | 3 | 1,242 | 10 |
| Ohkraut..... | Frank De Boy..... | Rifle..... | 165 | 2 | 853 | ..... |
| Harvey Gap..... | James La Donne..... | Rifle..... | 260 | 3 | 500 | 6 |
| McLearn..... | Crumpley & Sons..... | Rifle..... | 62 | 2 | 339 | 10 |
| Paradise..... | Angelo Bellodi..... | Rifle..... | 107 | 1 | 260 | ..... |
| Earnest..... | Kenneth Gardner..... | Carbondale..... | 60 | 3 | 208 | 10 |
| Prospect..... | R. Knapp..... | Glenwood Springs..... | 45 | 2 | 45 | ..... |
| Number | of Mines operated : 13..... | ..... | 180 | 44 | 30,447 | ..... |

TABLE D—1931—Continued.
GUNNISON COUNTY

| Name of Mine | Name of Company | Mine Post Office | Character of Coal | Number of Days Worked | Average No. of Men Employed | Total Number Produced | Capacity of Mine per Day, Tons |
|---------------------|------------------------------|--------------------|----------------------|-----------------------|-----------------------------|-----------------------|--------------------------------|
| Somerset..... | Calumet Fuel Co..... | Somerset..... | Bituminous..... | 185 | 109 | 153,924 | 1,200 |
| Crested Butte..... | Colorado Fuel & Iron Co..... | Crested Butte..... | Bituminous..... | 110.7 | 133 | 127,035 | 1,400 |
| Oliver..... | Oliver Coal Co..... | Somerset..... | Semi-anthracite..... | 145 | 45 | 36,232 | 500 |
| Alpine..... | Rocky Mountain Fuel Co..... | Baldwin..... | Semi-bituminous..... | 94 | 54 | 28,299 | 350 |
| Bulkley No. 2..... | Crested Butte Coal Co..... | Crested Butte..... | Bituminous..... | 93 | 55 | 26,785 | 500 |
| Horace..... | Horace Anthracite Co..... | Crested Butte..... | Anthracite..... | 110.3 | 67 | 24,761 | 300 |
| Ohio Creek..... | Ohio Creek Coal Co..... | Gunnison..... | Bituminous..... | 131 | 7 | 4,162 | 50 |
| Richardson..... | Richardson Coal Co..... | Gunnison..... | Semi-anthracite..... | 267 | 2 | 907 | ..... |
| Carbon Creek..... | Carbon Creek Coal Co..... | Gunnison..... | Bituminous..... | 250 | 1 | 598 | 3 |
| Hawk's Nest..... | Blunt & Andin..... | Somerset..... | Bituminous..... | 67 | 2 | 542 | ..... |
| Castle Rock..... | Castle Rock Coal Co..... | Gunnison..... | Bituminous..... | 79 | 2 | 525 | 15 |
| Baldwin Star..... | Baldwin Fuel Co..... | Baldwin..... | Bituminous..... | 58 | 1 | 439 | 50 |
| Number | of Mines operated: 12 | | | 126.1 | 528 | 404,209 | |
| HUERFANO COUNTY | | | | | | | |
| Robinson No. 1..... | Colorado Fuel & Iron Co..... | Walsen..... | Bituminous..... | 22.9 | 219 | 30,385 | 1,500 |
| Robinson No. 3..... | Colorado Fuel & Iron Co..... | Walsen..... | Bituminous..... | 11.6 | 236 | 12,882 | 1,400 |
| Robinson No. 4..... | | | | | | | |
| (Cameron) | | | | | | | |
| Kebler No. 2..... | Colorado Fuel & Iron Co..... | Farr..... | Bituminous..... | 182.6 | 234 | 240,316 | 1,600 |
| Alamo No. 1..... | Colorado Fuel & Iron Co..... | Tioga..... | Bituminous..... | 178.9 | 171 | 139,705 | 850 |
| | Alamo Coal Co..... | Alamo..... | Bituminous..... | 213 | 143 | 95,913 | 1,000 |
| Alamo No. 2..... | Barbour Coal Co..... | Alamo..... | Bituminous..... | 155 | 94 | 69,967 | 1,000 |
| Oakdale..... | Oakdale Coal Co..... | Oakview..... | Bituminous..... | 72 | 31 | 12,016 | 1,500 |
| Calumet No. 1..... | Calumet Fuel Co..... | Delcarbon..... | Bituminous..... | 133 | 162 | 79,613 | 1,000 |
| Calumet No. 2..... | Calumet Fuel Co..... | Delcarbon..... | Bituminous..... | 126 | 79 | 53,284 | 1,000 |
| Ravenwood..... | Callente Coal Co..... | Ravenwood..... | Bituminous..... | 127 | 106 | 37,899 | 1,400 |

HUERFANO COUNTY—Continued

| | | | | | | |
|----------------------|----------------------------|-----------------|-------|-------|---------|-------|
| Maitland..... | Callente Coal Co..... | Maitland..... | 69.5 | 34 | 14,748 | 200 |
| Pryor..... | Pryor Coal M. Co..... | Bituminous..... | 118.2 | 82 | 46,484 | 500 |
| Gordon..... | Gordon Coal Co..... | Bituminous..... | 167 | 58 | 37,145 | 500 |
| Ojo Canon..... | Peachey Coal Co..... | Bituminous..... | 244 | 40 | 20,117 | 500 |
| Mutual..... | Mutual Coal Co..... | Bituminous..... | 92 | 60 | 17,878 | 200 |
| Toltec..... | Aztec Coal M. Co..... | Bituminous..... | 56.3 | 49 | 17,771 | 250 |
| Sunnyside..... | Elk Heart Coal Co..... | Bituminous..... | 86 | 56 | 15,853 | 350 |
| Torril..... | Torril Coal M. Co..... | Bituminous..... | 159 | 27 | 12,568 | 100 |
| Vesta..... | Minnequa Fuel Co..... | Bituminous..... | 234 | 25 | 11,544 | ..... |
| Bunker Hill..... | Steve Mattivi & Sons..... | Bituminous..... | 192 | 8 | 3,840 | 20 |
| Black Hawk..... | Dale & Smith..... | Bituminous..... | 229 | 5 | 2,067 | 15 |
| George No. 1..... | Sam George & Sons..... | Bituminous..... | 51 | 4 | 484 | 10 |
| George No. 2..... | Sam George & Sons..... | Bituminous..... | 142 | 6 | 750 | 8 |
| Caddell No. 3..... | Ed Caddell..... | Bituminous..... | 155 | 4 | 908 | 10 |
| Fruth..... | George Fruth..... | Bituminous..... | 80 | 9 | 649 | ..... |
| Caddell No. 1..... | Sweet Bros..... | Bituminous..... | 84 | 4 | 470 | ..... |
| San Isabel..... | San Isabel Coal M. Co..... | Bituminous..... | 121 | 1 | 111 | ..... |
| Chaparral Canon..... | L. V. Powell..... | Bituminous..... | 60 | 1 | 30 | ..... |
| Number | of Mines operated: 28 | ..... | 119.1 | 1,948 | 975,397 | ..... |

JACKSON COUNTY

| | | | | | | |
|--------------------------------|-------------------------|---------------|-------|----|--------|-------|
| Moore No. 1 and Strip Pit..... | North Park Coal Co..... | Coalmont..... | 277 | 49 | 40,031 | { 700 |
| Marr..... | George M. Barnell..... | Walden..... | 210 | 5 | 4,192 | { 600 |
| Mitchell..... | Geo. W. Davidson..... | Walden..... | 30 | 1 | 74 | ..... |
| Number | of Mines operated: 3 | ..... | 248.1 | 55 | 44,298 | ..... |

JEFFERSON COUNTY

| | | | | | | |
|------------------------------|--------------------------|------------------------|-------|-----|---------|-------|
| Leyden No. 3..... | Leyden Lignite Co..... | Leyden via Golden..... | 243.5 | 82 | 114,825 | 750 |
| Christensen (Littleton)..... | Good Fuel Co..... | Littleton..... | 254 | 26 | 18,313 | 175 |
| Blue Bird..... | Blue Bird Mine, Inc..... | Sub-bituminous..... | 284 | 10 | 7,176 | 44 |
| Kojak..... | Kojak Mines, Inc..... | Sub-bituminous..... | 189 | 9 | 60 | ..... |
| Number | of Mines operated: 4 | ..... | 245 | 127 | 140,374 | ..... |

TABLE D—1931—Continued.
LA PLATA COUNTY

| Name of Mine | Name of Company | Mine Post Office | Character of Coal | Number of Days Worked | Average No. of Men Employed | Total Number of Tons Produced | Capacity of Mine per Day, Tons |
|--------------------|------------------------|------------------|---------------------|-----------------------|-----------------------------|-------------------------------|--------------------------------|
| Castle..... | Castle Coal & M. Corp. | Durango..... | Bituminous..... | 275 | 7 | 5,587 | 150 |
| Triangie..... | Triangie Coal Co. | Durango..... | Bituminous..... | 143 | 7 | 5,049 | ..... |
| O. K..... | O. K. Coal Co. | Durango..... | Bituminous..... | 97 | 13 | 5,032 | 50 |
| Black Diamond..... | Black Diamond Coal Co. | Durango..... | Bituminous..... | 108 | 7 | 3,712 | 100 |
| Sunshine..... | Sunshine Coal Co. | Durango..... | Bituminous..... | 186 | 3 | 3,538 | 25 |
| Morning Star..... | Bandino & Co. | Durango..... | Bituminous..... | 153 | 3 | 2,495 | 16 |
| Valley View..... | Valley View Coal Co. | Manco..... | Bituminous..... | 145 | 2 | 1,022 | 10 |
| Durango..... | Durango Coal Co. | Durango..... | Bituminous..... | 139 | 6 | 931 | 25 |
| Peerless..... | Peerless Coal Co. | Durango..... | Bituminous..... | 67 | 4 | 783 | ..... |
| Morning Glory..... | Chas. Yingling | Bayfield..... | Bituminous..... | 157 | 2 | 771 | 25 |
| Tipotsch..... | Frank Tipotsch. | Hesperus..... | Bituminous..... | 165 | 1 | 552 | ..... |
| Hunt..... | Wm. Hunt..... | Hesperus..... | Bituminous..... | 134 | 2 | 501 | 6 |
| Superior..... | Superior Fuel Co. | Durango..... | Bituminous..... | 87 | 2 | 393 | 100 |
| Excelsior..... | D. E. Richardson | Bayfield..... | Bituminous..... | 164 | 1 | 396 | ..... |
| Shamrock..... | Taylor Bros. | Bayfield..... | Bituminous..... | 75 | 1 | 311 | ..... |
| Pine River..... | Herman Schultz | Bayfield..... | Bituminous..... | 107 | 1 | 310 | 10 |
| Ft. Lewis..... | Xavier Dufur | Kline..... | Sub-bituminous..... | 110 | 1 | 165 | 10 |
| Hammond..... | M. F. Leonard | Bayfield..... | Sub-bituminous..... | 90 | 1 | 114 | ..... |
| Number | of Mines operated: 18. | | | 139.2 | 64 | 31,662 | |

LARIMER COUNTY

| | | | | | | | |
|--------------|----------------------|------------------------|---------------------|------|----|-------|-------|
| Benson..... | Miller Coal Co. | Carr (Star Route)..... | Sub-bituminous..... | 128 | 7 | 1,222 | ..... |
| Veasey..... | Reed & Maylan..... | Carr..... | Sub-bituminous..... | 80 | 3 | 570 | 6 |
| Pioneer..... | Walter Overcamp | Wellington..... | Sub-bituminous..... | 50 | 2 | 72 | 5 |
| Knox..... | Knox Coal Co. | Carr..... | Sub-bituminous..... | 20 | 3 | 50 | 10 |
| Number | of Mines operated: 4 | | | 87.4 | 15 | 1,914 | |

LAS ANIMAS COUNTY

| | | | | | | |
|------------------------|----------------------------------|-----------------|-------|-----|---------|-------|
| Frederick..... | Colorado Fuel & Iron Co..... | Valdez..... | 118.9 | 478 | 281,888 | 2,500 |
| Morley..... | Colorado Fuel & Iron Co..... | Bituminous..... | 89.1 | 447 | 188,401 | 1,800 |
| Toller..... | Colorado Fuel & Iron Co..... | Bituminous..... | 50 | 276 | 67,790 | 1,325 |
| Delagua..... | Victor-American Fuel Co..... | Bituminous..... | 185.9 | 351 | 267,106 | 2,000 |
| Brodhead No. 9..... | Temple Fuel Co..... | Bituminous..... | 139 | 198 | 114,286 | 700 |
| Kenneth..... | Vickers Coal Co..... | Bituminous..... | 199 | 65 | 52,103 | 500 |
| Boncarbo..... | American Smelting & Ref. Co..... | Cokedale..... | 111 | 144 | 82,076 | 1,200 |
| Bear Canon No. 6..... | Bear Canon Coal Co..... | Bituminous..... | 127 | 89 | 55,470 | 1,000 |
| Ludlow..... | Huerfano Coal Co..... | Bituminous..... | 120 | 117 | 48,895 | 600 |
| Empire..... | Empire Coal M. Co..... | Bituminous..... | 80.3 | 56 | 35,746 | 600 |
| Creston..... | Jewel Collieries Corp..... | Bituminous..... | 169 | 49 | 33,542 | 350 |
| Dix..... | Dick Coal Co..... | Bituminous..... | 155 | 32 | 25,751 | 300 |
| Sopris No. 1..... | Deldosso Coal Co..... | Bituminous..... | 188 | 30 | 21,455 | 300 |
| Rapson..... | Pio Michell..... | Bituminous..... | 220 | 32 | 16,541 | 150 |
| Anchor..... | Phoenix Fuel Co..... | Bituminous..... | 97.5 | 29 | 8,258 | 200 |
| Thor..... | Thor Fuel Co..... | Trinidad..... | 93.3 | 55 | 7,588 | 300 |
| Jeffries..... | Jeffries Fuel Co..... | Trinidad..... | 298 | 7 | 6,148 | 60 |
| Bowen..... | Home Fuel & Supply Co..... | Trinidad..... | 283 | 6 | 3,759 | 25 |
| La Belle..... | Wm. Morgan..... | Trinidad..... | 138 | 6 | 2,045 | ..... |
| Engle..... | James Wilson..... | Trinidad..... | 101 | 4 | 1,514 | 30 |
| Baldy..... | Baldy Coal Co..... | Trinidad..... | 244.5 | 3 | 1,492 | ..... |
| Bunker Hill No. 2..... | O. C. Cook..... | Trinidad..... | 59 | 8 | 1,214 | ..... |
| Pritchard..... | Chas. Pritchard..... | Trinidad..... | 172 | 3 | 1,183 | ..... |
| Fishers Peak..... | Marsh Coal Co..... | Trinidad..... | 167 | 2 | 871 | ..... |
| Santa Fe..... | Santa Fe Coal Co..... | Trinidad..... | 83 | 6 | 829 | ..... |
| Star..... | Star Coal Co..... | Agular..... | 200 | 2 | 681 | ..... |
| Lakeview..... | Nick Riggs..... | Trinidad..... | 125 | 2 | 687 | 15 |
| Davich..... | Davich Coal Co..... | Rapson..... | 142 | 2 | 668 | ..... |
| Fairview..... | W. H. Owen..... | Trinidad..... | 180 | 2 | 566 | 10 |
| Martinez..... | Rafael Martinez..... | Cokedale..... | 287 | 1 | 519 | ..... |
| Frisco..... | Frisco Coal Co..... | Trinidad..... | 96 | 3 | 385 | 6 |
| Daisy..... | Daisy Coal Co..... | Bituminous..... | 69 | 3 | 377 | ..... |
| Ferrill..... | J. A. Hollingsworth..... | Bituminous..... | 176 | 2 | 369 | 4 |
| Timber Canon..... | O. C. Cook..... | Bituminous..... | 53 | 7 | 354 | ..... |
| Standard..... | Standard Coal Co..... | Bituminous..... | 125 | 3 | 350 | ..... |

TABLE D—1931—Continued.
LAS ANIMAS COUNTY—Continued

| Name of Mine | Name of Company | Mine Post Office | Character of Coal | Number of Days Worked | Average No. of Men Employed | Total Num- ber of Tons Produced | Capacity of Mine per Day, Tons |
|----------------------|-----------------------------------|---------------------|----------------------|-----------------------------|-----------------------------------|---------------------------------------|--------------------------------------|
| Blue Blaze..... | Blue Blaze Coal Co..... | Trinidad | Bituminous | 172 | 3 | 299 | 20 |
| Little Mary..... | Harvey & Sons..... | Trinidad | Bituminous | 200 | 3 | 250 | ..... |
| New Congo..... | Cash & Carry Coal Co..... | Aguliar | Bituminous | 90 | 2 | 200 | 10 |
| Hill Top..... | Trinidad Coal Co..... | Cokedale | Bituminous | 170 | 3 | 184 | ..... |
| Wiley..... | Fidriizzi, McDonald & Miller..... | Trinidad | Bituminous | 99 | 2 | 131 | 4 |
| Rudy..... | Rudy Coal Co..... | Cokedale | Bituminous | 56 | 2 | 119 | ..... |
| Forbes..... | W. E. Riggs..... | Trinidad | Bituminous | 74 | 3 | 112 | 10 |
| Flag..... | Joe Rogerio..... | Trinidad | Bituminous | 20 | 2 | 110 | 10 |
| Medina..... | Pete Medina..... | Weston | Bituminous | 40 | 2 | 80 | 3 |
| Madrid..... | A. Santisteran..... | Cokedale | Bituminous | 20 | 2 | 20 | ..... |
| Beshour..... | Joerger Coal Co..... | Trinidad | Bituminous | 200 | 2 | 850 | 20 |
| Vigil..... | Vigil Fuel Co..... | Segundo | Bituminous | 35 | 2 | 87 | ..... |
| Pickford..... | Bonglo Coal Co..... | Trinidad | Bituminous | 230 | 2 | 650 | 3 |
| Number | of Mines operated: 48..... | | | 125.5 | 2,550 | 1,333,999 | |
| MESA COUNTY | | | | | | | |
| Cameo..... | McNell Coal Corp..... | Cameo | Semi-bituminous | 128 | 50 | 44,386 | 600 |
| Palisade..... | Palisade Coal Lease Co..... | Palisade | Semi-bituminous | 220 | 15 | 8,713 | 200 |
| Garfield..... | Garfield Coal Co..... | Palisade | Bituminous | 207 | 11 | 7,890 | ..... |
| Winger..... | Clark Coal Co..... | Palisade | Bituminous | 136 | 4 | 3,451 | ..... |
| Riverside..... | Riverside Coal Co..... | Palisade | Semi-bituminous | 180 | 6 | 2,730 | 50 |
| Stove Canon..... | Stove Canon Coal Co..... | Fruta | Bituminous | 171.5 | 4 | 2,462 | ..... |
| Hidden Treasure..... | Hidden Treasure Coal Co..... | Fruta | Bituminous | 190 | 4 | 2,350 | 30 |
| Stokes..... | W. D. Stokes..... | Palisade | Semi-bituminous | 158 | 6 | 2,343 | 80 |

MESA COUNTY—Continued

| | | | | | |
|---------------------|-------------------------------|----------------------|-------|-----|--------|
| Williams..... | Williams Coal Co..... | Grand Junction..... | 173 | 4 | 1,813 |
| McGinley..... | Wm. McGinley..... | Grand Junction..... | 201 | 2 | 1,502 |
| Corcoran..... | Appleton Coal Co..... | Grand Junction..... | 209 | 2 | 1,082 |
| Mt. Lincoln..... | Mt. Lincoln Coal Co..... | Palisade..... | 184 | 2 | 1,078 |
| P. V..... | Kovak & Skoda..... | Bituminous..... | 215 | 2 | 939 |
| Farmers Mutual..... | Farmers Mutual Coal Co..... | Semi-bituminous..... | 141 | 4 | 785 |
| Midwest..... | Midwest Development Corp..... | Bituminous..... | 131 | 4 | 1,071 |
| Hunter..... | J. B. Hunter..... | Bituminous..... | 175 | 2 | 553 |
| Thomas..... | Thomas Coal Co..... | Semi-anthracite..... | 200 | 2 | 546 |
| Anchor No. 1..... | Anchor Coal Co..... | Bituminous..... | 109 | 2 | 486 |
| Coal Gulch..... | Coal Gulch Coal Co..... | Bituminous..... | 196 | 2 | 493 |
| Peacock..... | Peacock Coal Co..... | Semi-bituminous..... | 110 | 2 | 433 |
| Liberty..... | Liberty Coal & Merc. Co..... | Bituminous..... | 182 | 2 | 370 |
| Grasso..... | N. Grasso..... | Bituminous..... | 40 | 2 | 176 |
| Mt. Garfield..... | B. Gearhart..... | Bituminous..... | 281 | 7 | 7,027 |
| | of Mines operated: 23..... | | 187.1 | 141 | 92,679 |
| | Number | | | | |

MOFFAT COUNTY

| | | | | | |
|-------------------|---------------------------|---------------------|-----|----|-------|
| Ute (Collom)..... | Ute Coal Co..... | Bituminous..... | 222 | 3 | 1,685 |
| Shaver..... | Phelan & Shaver..... | Bituminous..... | 206 | 3 | 1,421 |
| Hart..... | Hart Coal Co..... | Sub-bituminous..... | 60 | 6 | 756 |
| Whitlock..... | E. E. Whitlock..... | Bituminous..... | 20 | 1 | 91 |
| | of Mines operated: 4..... | | 128 | 13 | 3,953 |
| | Number | | | | |

MONTEZUMA COUNTY

| | | | | | |
|------------------------|----------------------------|---------------------|-----|---|-----|
| Spencer..... | Geo. S. Spencer..... | Sub-bituminous..... | 167 | 2 | 924 |
| School-Sec. Lease..... | Mancos Coal & Fuel Co..... | Sub-bituminous..... | 159 | 2 | 837 |
| Pinos Altos..... | H. A. Ainsworth..... | Sub-bituminous..... | 272 | 2 | 696 |
| Cortez..... | Cortez Coal Co..... | Sub-bituminous..... | 184 | 1 | 640 |
| Wilden..... | Willden Coal Co..... | Sub-bituminous..... | 260 | 2 | 413 |
| | | | | | |

TABLE D—1931—Continued.
MONTEZUMA COUNTY—Continued

| Name of Mine | Name of Company | Mine Post Office | Character of Coal | Number of Days Worked | Average No. of Men Employed | Total Number of Tons Produced | Capacity of Mine per Day, Tons |
|----------------------|----------------------------|--------------------|----------------------|-----------------------|-----------------------------|-------------------------------|--------------------------------|
| Black Ace..... | George Stakish..... | Lewis..... | Bituminous..... | 147 | 2 | 380 | ..... |
| Dolores..... | Sagrillo & Clark..... | McPhee..... | Semi-bituminous..... | 40 | 2 | 250 | ..... |
| Mesa Verde..... | G. B. Cushman..... | Cortez..... | Sub-bituminous..... | 48 | 2 | 174 | ..... |
| Morris..... | G. W. Morris..... | Dolores..... | Sub-bituminous..... | 60 | 2 | 170 | 5 |
| Braden..... | Olney Braden..... | Dolores..... | Sub-bituminous..... | 67 | 2 | 105 | ..... |
| Todd..... | David Gantz..... | Cortez..... | Sub-bituminous..... | 60 | 2 | 104 | 6 |
| McCargish..... | Ed McCargish..... | Yellow Jacket..... | Sub-bituminous..... | 60 | 1 | 97 | ..... |
| Bud Ince..... | Bud Ince..... | Lebanon..... | Bituminous..... | 90 | 1 | 90 | 1 |
| Sunnyside..... | Greenwood & Arnott..... | Lebanon..... | Bituminous..... | 50 | 1 | 70 | 8 |
| Mancos Hill..... | Mancos Hill Coal Co..... | Mancos..... | Bituminous..... | 13 | 4 | 35 | 10 |
| Number | of Mines operated: 15..... | | | 107 | 28 | 4,985 | |
| MONTROSE COUNTY | | | | | | | |
| Liberty Bell..... | Liberty Bell Coal Co..... | Nucla..... | Bituminous..... | 240 | 2 | 678 | 6 |
| Independence..... | Wm. J. Oberding..... | Nucla..... | Bituminous..... | 110 | 1 | 190 | ..... |
| Cloverdale..... | C. E. Mix..... | Nucla..... | Bituminous..... | 24 | 2 | 127 | ..... |
| Pleasant Valley..... | Chas. A. Rice..... | Nucla..... | Sub-bituminous..... | 67 | 1 | 82 | 3 |
| Mountain View..... | Mountain View Coal Co..... | Colona..... | Sub-bituminous..... | 35 | 4 | 65 | 2 |
| Number | of Mines operated: 5..... | | | 84.5 | 10 | 1,143 | |

OURAY COUNTY

| | | | | | | |
|---------------------|---------------------------|---------------|---------------------|-------|---|-------|
| Kennedy..... | H. A. Kennedy..... | Ridgway..... | Sub-bituminous..... | 194 | 2 | 942 |
| Green Mountain..... | Lowery & Spence..... | Ridgway..... | Sub-bituminous..... | 150 | 2 | 400 |
| Bright Diamond..... | E. G. Slagle..... | Ridgway..... | Sub-bituminous..... | 80 | 2 | 205 |
| Colona..... | Colona Coal Co..... | Colona..... | Sub-bituminous..... | 56 | 1 | 146 |
| Tyler..... | Burro Creek Coal Co..... | Montrose..... | Sub-bituminous..... | 25 | 1 | 49 |
| Number | of Mines operated: 5..... | | | 116.1 | 8 | 1,742 |

PARK COUNTY

| | | | | | | |
|-----------------|---------------------------|-----------|-----------------|----|---|-----|
| South Park..... | South Park Coal Co..... | Como..... | Bituminous..... | 60 | 4 | 200 |
| Number | of Mines operated: 1..... | | | 60 | 4 | 200 |

PITKIN COUNTY

| | | | | | | |
|--------------|---------------------------|--------------|-----------------|-----|----|--------|
| Placita..... | Placita Coal M. Co..... | Placita..... | Bituminous..... | 163 | 16 | 10,175 |
| Number | of Mines operated: 1..... | | | 163 | 16 | 10,175 |

RIO BLANCO COUNTY

| | | | | | | |
|---------------------|---------------------------|-----------------|-----------------|-------|----|-------|
| Pollard..... | Electric Coal Co..... | Meeker..... | Bituminous..... | 253 | 4 | 3,128 |
| McKee..... | Electric Coal Co..... | Meeker..... | Bituminous..... | 122 | 2 | 351 |
| New Pollard..... | C. F. Pollard..... | Meeker..... | Bituminous..... | 292 | 2 | 1,924 |
| Lion Canon..... | Lion Canon Coal Co..... | Meeker..... | Bituminous..... | 190 | 2 | 1,188 |
| Fairfield..... | E. F. Fairfield..... | Meeker..... | Bituminous..... | 120 | 1 | 400 |
| Nine Mile Hill..... | Thos. D. Foreman..... | Meeker..... | Bituminous..... | 143 | 1 | 384 |
| Douglas Creek..... | Jones & Trachta..... | Rangely..... | Bituminous..... | 75 | 1 | 310 |
| Reinau..... | R. C. Reinau..... | Meeker..... | Bituminous..... | 50 | 1 | 133 |
| Ford..... | J. D. Ford..... | Rio Blanco..... | Bituminous..... | 90 | 1 | 129 |
| Number | of Mines operated: 9..... | | | 173.2 | 15 | 7,947 |

TABLE D—1931—Continued.

ROUFT COUNTY

| Name of Mine | Name of Company | Mine Post Office | Character of Coal | Number of Days Worked | Average No. of Men Employed | Total Num-ber of Tons Produced | Capacity of Mine per Day, Tons |
|---------------------|----------------------------|-------------------|-------------------|-----------------------|-----------------------------|--------------------------------|--------------------------------|
| Oak Hills No. 1 & 2 | Moffat Coal Co. | Oak Creek | Bituminous | 75.2 | 188 | 121,159 | 4,000 |
| Arrowhead | Moffat Coal Co. | Oak Creek | Bituminous | 90 | 2 | 912 | 300 |
| Harris | Colorado & Utah Coal Co. | Mt. Harris | Bituminous | 51.2 | 160 | 103,020 | 4,000 |
| Pinnacle | Victor-American Fuel Co. | Oak Creek | Bituminous | 40.4 | 144 | 75,658 | 1,750 |
| Wadge | Victor-American Fuel Co. | Mt. Harris | Bituminous | 17.1 | 37 | 20,632 | 1,000 |
| Hayden No. 3 | Hayden Coal Co. | Haybro | Bituminous | 69.7 | 112 | 91,672 | 1,500 |
| Keystone | Keystone Coal Co. | Rouff | Bituminous | 65.1 | 83 | 44,414 | 1,000 |
| McNeill | McNeil Coal Corp. | McGregor | Bituminous | 130 | 54 | 34,853 | 500 |
| Bear River | Bear River Coal Co. | Bear River | Bituminous | 46.5 | 63 | 29,908 | 1,000 |
| P. K. No. 1 | Pinnacle-Kemmerer Fuel Co. | Mt. Harris | Bituminous | 54.5 | 75 | 25,767 | 500 |
| Seven Points | Seven Points Coal Co. | Phippsburg | Bituminous | 236 | 6 | 8,428 | ..... |
| Argo | Geo. T. Rolfs | Oak Creek | Bituminous | 221 | 7 | 5,880 | 50 |
| Babson | Babson Coal Co. | Hayden | Bituminous | 208 | 3 | 2,042 | 20 |
| Fish Creek | Kaspar Weberkirch | Hayden | Bituminous | 112 | 2 | 1,288 | ..... |
| Hayden Mutual | Hayden Valley M. Coal Co. | Hayden | Bituminous | 156 | 3 | 1,200 | 15 |
| Block | E. H. Zimmerman | Steamboat Springs | Bituminous | 146 | 3 | 1,046 | 50 |
| Colorado | Colorado-Pinnacle Coal Co. | Hayden | Bituminous | 178 | 6 | 1,008 | ..... |
| Ritchneg | John Ritchneg | Bear River | Bituminous | 108 | 2 | 906 | 12 |
| Jones | Jones Coal Co. | Bear River | Bituminous | 151 | 1 | 857 | 15 |
| Premium | Fruth & Micheletti | Milner | Bituminous | 97 | 2 | 697 | 20 |
| Sage Creek | Robert Hendricks | Hayden | Bituminous | 120 | 2 | 650 | ..... |
| Trout Creek | Trout Creek Coal Co. | Oak Creek | Bituminous | 151 | 1 | 359 | 2 |
| Butcher Knife | Butcher Knife Coal Co. | Steamboat Springs | Bituminous | 69 | 3 | 356 | ..... |
| Edna | Edna Coal Co. | Oak Creek | Bituminous | 94 | 2 | 352 | 30 |
| Amos | Amos Coal Co. | McGregor | Bituminous | 91 | 1 | 291 | 50 |
| Scott | J. E. Webber | Pagoda | Bituminous | 68 | 1 | 250 | ..... |
| Black Wolf | Mountain States Fuel Co. | Mt. Harris | Bituminous | 67.5 | 3 | 204 | 10 |

ROUTT COUNTY—Continued

| | | | | | |
|----------------|------------------------------|-----------------|------|-----|---------|
| McCroskey..... | R. Z. McCroskey..... | Bituminous..... | 90 | 1 | 106 |
| Walter..... | John Bainton..... | Bituminous..... | 26 | 1 | 102 |
| Black Cal..... | E. A. Muer..... | Bituminous..... | 90 | 1 | 88 |
| Chergo..... | Tom Chergo..... | Bituminous..... | 90 | 1 | 75 |
| Jake..... | J. H. Downhower..... | Bituminous..... | 40 | 1 | 31 |
| | Number of Mines operated: 32 | | 68.1 | 971 | 574,211 |

SAN MIGUEL COUNTY

| | | | | | |
|---------------|-----------------------------|---------------------|-------|---|-------|
| Horton..... | Horton Coal Co..... | Sub-bituminous..... | 260 | 2 | 510 |
| Gray..... | L. J. Gray..... | Sub-bituminous..... | 120 | 1 | 321 |
| Keck..... | Hardman & Son..... | Sub-bituminous..... | 120 | 3 | 320 |
| Royers..... | J. S. Royers..... | Sub-bituminous..... | 100 | 2 | 200 |
| Marriott..... | Wm. Marriott..... | Sub-bituminous..... | 120 | 1 | 153 |
| | Number of Mines operated: 5 | | 146.7 | 9 | 1,504 |

WELD COUNTY

| | | | | | |
|---------------------|----------------------------------|---------------------|-------|-------|-----------|
| Columbine..... | Rocky Mountain Fuel Co..... | Sub-bituminous..... | 224.1 | 239 | 275,072 |
| Grant..... | Rocky Mountain Fuel Co..... | Sub-bituminous..... | 189 | 165 | 195,757 |
| Boulder Valley..... | Boulder Valley Coal Co..... | Sub-bituminous..... | 144 | 148 | 251,064 |
| Clayton..... | Clayton Coal Co..... | Sub-bituminous..... | 161 | 190 | 178,139 |
| Morrison..... | Clayton Coal Co..... | Sub-bituminous..... | 212 | 66 | 57,987 |
| Puritan..... | National Fuel Co..... | Sub-bituminous..... | 176.2 | 188 | 189,755 |
| Imperial..... | Imperial Coal Co..... | Sub-bituminous..... | 164 | 133 | 158,787 |
| Baum..... | Consolidated Coal & Coke Co..... | Sub-bituminous..... | 194 | 109 | 106,705 |
| Shamrock..... | Shamrock Coal Co..... | Sub-bituminous..... | 105.3 | 90 | 87,885 |
| Sterling..... | McNeil Coal Corp..... | Sub-bituminous..... | 146 | 67 | 74,662 |
| Russell..... | W. E. Russell Coal Co..... | Sub-bituminous..... | 123 | 72 | 64,372 |
| Liley..... | Liley Coal & Land Co..... | Sub-bituminous..... | 205 | 42 | 43,753 |
| White Ash..... | White Ash Coal Co..... | Sub-bituminous..... | 175 | 4 | 2,146 |
| Sunset..... | Sunset Fuel Co..... | Sub-bituminous..... | 91 | 2 | 229 |
| | Number of Mines operated: 14 | | 174.6 | 1,535 | 1,686,313 |

STATE OF COLORADO

| | |
|---------------------------------------------|-----------|
| Total Number of Mines Operated..... | 318 |
| Total Number of Man-Days Worked..... | 139.7 |
| Total Number of Men Employed (Average)..... | 10,015 |
| Total Number of Tons of Coal Produced..... | 6,604,063 |

TABLE D—1932.

SHOWING BY COUNTIES, MINES OPERATED, NAME OF OPERATOR AND ADDRESS OF MINE, CHARACTER OF COAL, NUMBER OF DAYS WORKED, AVERAGE NUMBER OF MEN EMPLOYED, TOTAL NUMBER OF TONS OF COAL PRODUCED IN 1932 AND CAPACITY OF MINE PER DAY IN TONS.

ARAPAHOE COUNTY

| Name of Mine | Name of Company | Mine Post Office | Character of Coal | Number of Days Worked | Average No. of Men Employed | Total Number of Tons Produced | Capacity of Mine per Day, Tons |
|---------------|----------------------------|------------------|---------------------|-----------------------|-----------------------------|-------------------------------|--------------------------------|
| Air Line..... | C. J. Gallagher..... | Deer Trail..... | Sub-bituminous..... | 60 | 2 | 290 | 10 |
| Number | of Mines operated : 1..... | | | 60 | 2 | 290 | |

ARCHULETA COUNTY

| | | | | | | | |
|---------------|----------------------------|----------------------|---------------------|------|---|-----|---|
| A. & B..... | Antonati & Bellini..... | Pagosa Junction..... | Sub-bituminous..... | 90 | 2 | 315 | 2 |
| Cox..... | T. L. Cox..... | Pagosa Springs..... | Bituminous..... | 180 | 2 | 190 | 1 |
| McBroom..... | Chas. McBroom..... | Dyke..... | Bituminous..... | 14 | 1 | 96 | |
| Nossaman..... | W. J. Nossaman..... | Pagosa Springs..... | Bituminous..... | 100 | 1 | 85 | |
| Hardman..... | A. L. Harrington..... | Dyke..... | Bituminous..... | 20 | 1 | 65 | |
| Number | of Mines operated : 5..... | | | 96.3 | 7 | 751 | |

BOULDER COUNTY

| | | | | | | | |
|--------------------------|-----------------------------------|-----------------|---------------------|-------|-----|---------|-----|
| Industrial..... | Rocky Mountain Fuel Co..... | Superior..... | Sub-bituminous..... | 167.8 | 168 | 121,416 | 800 |
| Vulcan..... | Rocky Mountain Fuel Co..... | Lafayette..... | Sub-bituminous..... | 239.1 | 62 | 58,983 | 225 |
| Standard..... | Rocky Mountain Fuel Co..... | Lafayette..... | Sub-bituminous..... | 212.5 | 46 | 45,364 | 300 |
| Monarch No. 2..... | National Fuel Co..... | Broomfield..... | Sub-bituminous..... | 231 | 132 | 101,897 | 650 |
| Hi-Way..... | Louisville-Lafayette Coal Co..... | Broomfield..... | Sub-bituminous..... | 279 | 82 | 91,987 | 750 |
| Crown..... | David Allan..... | Gorham..... | Sub-bituminous..... | 218 | 75 | 65,507 | 500 |
| Black Diamond No. 2..... | Black Diamond Fuel Co..... | Lafayette..... | Sub-bituminous..... | 310 | 55 | 58,385 | 500 |

BOULDER COUNTY--Continued

| | | | | | | |
|------------------------------|------------|----------------|-------|-----|---------|-----|
| High View | Gorham | Sub-bituminous | 215 | 7 | 5,769 | 50 |
| Pluto | Boulder | Sub-bituminous | 208 | 9 | 5,172 | 150 |
| Gorham No. 2 | Gorham | Sub-bituminous | 258 | 6 | 5,099 | 60 |
| Fireside | Louisville | Sub-bituminous | 298.5 | 8 | 3,543 | 35 |
| New Rcass | Gorham | Sub-bituminous | 130 | 7 | 2,858 | 30 |
| Sunrise | Gorham | Sub-bituminous | 226 | 3 | 1,970 | 20 |
| Indino | Gorham | Sub-bituminous | 25 | 4 | 400 | 17 |
| Peerless | Gorham | Sub-bituminous | 105 | 5 | 1,738 | 15 |
| Pittsburgh | Gorham | Sub-bituminous | 195 | 4 | 1,216 | 15 |
| Cactus | Boulder | Sub-bituminous | 26 | 3 | 230 | 10 |
| Number of Mines operated: 17 | | | 221.8 | 676 | 571,534 | |

DELTA COUNTY

| | | | | | | |
|------------------------------|-----------|-----------------|-------|----|--------|------|
| King | Bowie | Bituminous | 65 | 36 | 27,186 | 1000 |
| Green Valley | Cedaredge | Bituminous | 272 | 6 | 5,565 | |
| Red Canon | Cedaredge | Bituminous | 290 | 4 | 3,927 | |
| Winton | Austin | Semi-bituminous | 138 | 2 | 2,446 | 80 |
| States | Cedaredge | Semi-bituminous | 229 | 4 | 2,257 | |
| Red Mountain | Cedaredge | Semi-bituminous | 214 | 4 | 1,544 | 40 |
| Independent | Cedaredge | Semi-bituminous | 134 | 3 | 2,009 | |
| Paonia | Paonia | Semi-bituminous | 188 | 3 | 1,859 | |
| Western Star | Cedaredge | Semi-bituminous | 162 | 2 | 1,025 | 25 |
| Bennett | Hotchkiss | Sub-bituminous | 129 | 2 | 668 | 25 |
| Fitzsimmons | Paonia | Semi-bituminous | 129 | 2 | 594 | 4 |
| Converse | Paonia | Semi-bituminous | 121 | 1 | 461 | 20 |
| Gelwick | Hotchkiss | Semi-bituminous | 74 | 3 | 402 | 10 |
| Fairview | Austin | Semi-bituminous | 150 | 1 | 371 | 20 |
| Rollins | Delta | Semi-bituminous | 50 | 2 | 256 | |
| North Star | Delta | Semi-bituminous | 46 | 4 | 119 | |
| Lou Creek | Lazear | Sub-bituminous | 90 | 2 | 71 | 10 |
| Owens | Hotchkiss | Sub-bituminous | 45 | 1 | 49 | |
| Number of Mines operated: 18 | | | 122.3 | 82 | 50,809 | |

TABLE D—1932—Continued.
ELBERT COUNTY

| Name of Mine | Name of Company | Mine Post Office | Character of Coal | Number of Days Worked | Average No. of Men Employed | Total Number of Tons Produced | Capacity of Mine per Day, Tons |
|----------------------|---------------------------------|-----------------------|---------------------|-----------------------|-----------------------------|-------------------------------|--------------------------------|
| Wright..... | Wright Barker..... | Matheson..... | Sub-bituminous..... | 218 | 3 | 2,696 | 100 |
| Mascot..... | Mascot Coal, Oil & Clay Co..... | Matheson..... | Sub-bituminous..... | 161 | 4 | 809 | 100 |
| Buick..... | Buick Coal Co..... | Agate..... | Sub-bituminous..... | 90 | 2 | 400 | ..... |
| Shay..... | O. J. Shay..... | Matheson..... | Sub-bituminous..... | 38 | 2 | 394 | ..... |
| Number | of Mines operated: 4..... | ..... | ..... | 141.3 | 11 | 4,299 | ..... |
| EL PASO COUNTY | | | | | | | |
| Pikeview..... | Pikes Peak Fuel Co..... | Colorado Springs..... | Sub-bituminous..... | 219 | 160 | 215,441 | 1200 |
| City Coal Mines..... | Colorado Springs Co..... | Colorado Springs..... | Sub-bituminous..... | 209 | 64 | 40,286 | 500 |
| Corley..... | Corley Coal Co..... | Colorado Springs..... | Sub-bituminous..... | 257 | 34 | 28,670 | 300 |
| Jimmy Camp..... | Thomas Mining Co..... | Colorado Springs..... | Sub-bituminous..... | 208 | 20 | 12,756 | 100 |
| Kurie..... | Kurie Coal Co..... | Colorado Springs..... | Sub-bituminous..... | 258 | 13 | 6,434 | ..... |
| Franceville..... | Howells Coal Co..... | Colorado Springs..... | Sub-bituminous..... | 123 | 14 | 3,009 | 75 |
| Climax..... | Danville Coal Co..... | Colorado Springs..... | Sub-bituminous..... | 220 | 2 | 2,894 | ..... |
| Altitude..... | Altitude Fuel Co..... | Colorado Springs..... | Sub-bituminous..... | 318 | 9 | 2,345 | 40 |
| Drennan..... | Drennan Coal Co..... | Fountain..... | Sub-bituminous..... | 176 | 2 | 1,269 | 25 |
| Golden Dawn..... | Elliott & Magee..... | Yoder..... | Sub-bituminous..... | 201 | 2 | 495 | ..... |
| Number | of Mines operated: 10..... | ..... | ..... | 220.1 | 320 | 313,599 | ..... |

TABLE D—1932—Continued.
GARFIELD COUNTY

| Name of Mine | Name of Company | Mine Post Office | Character of Coal | Number of Days Worked | Average No. of Men Employed | Total Number of Tons Produced | Capacity of Mine per Day, Tons |
|---------------------|----------------------------------|-----------------------|----------------------|-----------------------|-----------------------------|-------------------------------|--------------------------------|
| South Caron..... | South Canon Mine Leasing Co..... | Glenwood Springs..... | Bituminous..... | 228 | 10 | 15,265 | 75 |
| Carbonera..... | Gilson Asphaltum Co..... | Mack..... | Bituminous..... | 162.5 | 8 | 6,869 | 60 |
| McDonald..... | W. G. McDonald..... | Glenwood Springs..... | Bituminous..... | 119 | 4 | 1,819 | 200 |
| Rauman..... | Rauman Coal Co..... | Rife..... | Bituminous..... | 246 | 2 | 1,460 | 10 |
| Estes..... | Estes Bros..... | Rife..... | Bituminous..... | 144 | 2 | 1,445 | ..... |
| Ziesenis..... | Henry Ziesenis..... | Rife..... | Bituminous..... | 148.8 | 2 | 1,426 | ..... |
| Harvey Gap..... | James Le Donne..... | New Castle..... | Bituminous..... | 234 | 4 | 1,165 | 10 |
| Earnest..... | Kenneth Gardner..... | Carbondale..... | Bituminous..... | 252 | 2 | 1,042 | 10 |
| Roberson..... | Roberson Coal Co..... | Rife..... | Bituminous..... | 365 | 2 | 780 | ..... |
| Silt..... | Morgan Coal Co..... | Silt..... | Bituminous..... | 143 | 2 | 706 | ..... |
| Ohkraut..... | Frank Deboy..... | Glenwood Springs..... | Bituminous..... | 126 | 1 | 624 | ..... |
| North Canon..... | Rifle Coal Mines, Inc..... | Rife..... | Bituminous..... | 76 | 2 | 456 | ..... |
| Paradise..... | Angelo Bellodi..... | Glenwood Springs..... | Bituminous..... | 102 | 2 | 234 | ..... |
| McLearn..... | Crumpley Coal Co..... | Rife..... | Bituminous..... | 30 | 2 | 110 | ..... |
| Old Keystone..... | Church & Schlegel..... | New Castle..... | Bituminous..... | 55 | 3 | 43 | ..... |
| Number | of Mines operated: 15..... | ..... | ..... | 172.8 | 48 | 33,444 | ..... |
| GUNNISON COUNTY | | | | | | | |
| Crested Butte..... | Colorado Fuel & Iron Co..... | Crested Butte..... | Bituminous..... | 118.2 | 184 | 140,671 | 1200 |
| Somerset..... | Calumet Fuel Co..... | Somerset..... | Bituminous..... | 114 | 98 | 124,594 | 1200 |
| Oliver..... | Oliver Coal Co..... | Somerset..... | Semi-anthracite..... | 200 | 41 | 46,704 | 500 |
| Alpine..... | Rocky Mountain Fuel Co..... | Baldwin..... | Semi-bituminous..... | 126 | 60 | 37,276 | 350 |
| Horace..... | Horace Anthracite Co..... | Crested Butte..... | Anthracite..... | 107.8 | 78 | 25,390 | 275 |
| Bulkeley No. 2..... | Crested Butte Coal Co..... | Crested Butte..... | Bituminous..... | 213 | 28 | 22,545 | 500 |
| Ohio Creek..... | Ohio Creek Coal Co..... | Gunnison..... | Bituminous..... | 130 | 5 | 1,772 | 50 |

GUNNISON COUNTY—Continued

| | | | | | | |
|-------------------|----------------------------|---------------|-------|-----|---------|-------|
| Hawks Nest..... | Clement Audin..... | Somerset..... | 147.5 | 3 | 1,636 | 14 |
| Bear..... | Tony Bear..... | Somerset..... | 180 | 4 | 180 | 4 |
| Castle Rock..... | Castle Rock Coal Co..... | Gunnison..... | 131 | 2 | 1,004 | 20 |
| Richardson..... | Richardson Coal Co..... | Gunnison..... | 140 | 2 | 886 | 10 |
| Carbon Creek..... | Carbon Creek Coal Co..... | Gunnison..... | 189 | 1 | 388 | ..... |
| Baldwin-Star..... | Baldwin Fuel Co..... | Gunnison..... | 40 | 1 | 300 | 20 |
| Hinkle..... | Stuart M. Anderson..... | Gunnison..... | 67 | 2 | 265 | 8 |
| | of Mines operated: 14..... | | 129.8 | 509 | 404,714 | |

HUERFANO COUNTY

| | | | | | | |
|---------------------|------------------------------|-----------------|-------|-----|---------|-------|
| Robinson No. 4..... | Colorado Fuel & Iron Co..... | Farr..... | 138.2 | 264 | 199,331 | 1000 |
| Kebler No. 2..... | Colorado Fuel & Iron Co..... | Thoga..... | 198.2 | 165 | 81,807 | 850 |
| Alamo No. 1..... | Alamo Coal Co..... | Alamo..... | 194 | 95 | 68,984 | 1000 |
| Alamo No. 2..... | Barbour Coal Co..... | Alamo..... | 82 | 142 | 42,738 | 1000 |
| Oakdale..... | Oakdale Coal Co..... | Oakview..... | 28 | 23 | 3,317 | ..... |
| Calumet No. 1..... | Calumet Fuel Co..... | Delcarbon..... | 101.1 | 122 | 53,832 | 600 |
| Calumet No. 2..... | Calumet Fuel Co..... | Delcarbon..... | 41.5 | 63 | 13,835 | 600 |
| Gordon..... | Gordon Coal Co..... | Gordon..... | 202 | 53 | 45,870 | 500 |
| Pryor..... | Pryor Coal M. Co..... | Pryor..... | 91.2 | 95 | 42,942 | 500 |
| Ravenwood..... | Caliente Coal Co..... | Ravenwood..... | 83 | 105 | 27,551 | 400 |
| Maitland..... | Caliente Coal Co..... | Maitland..... | 59 | 42 | 11,700 | 300 |
| Vesta..... | Waniqua Fuel Co..... | Walsenburg..... | 172 | 24 | 19,065 | ..... |
| Sunnyside..... | Elk Heart Coal Co..... | Walsenburg..... | 93.3 | 40 | 17,091 | ..... |
| Ojo Canon..... | Peachey Coal Co..... | La Veta..... | 296 | 43 | 16,955 | 150 |
| Toltec..... | Aztec Coal Mining Co..... | Toltec..... | 41 | 46 | 8,872 | ..... |
| Torrid..... | Torrid Coal Mining Co..... | Agular..... | 159 | 10 | 6,585 | 50 |
| Black Hawk..... | Black Hawk Coal M. Co..... | Walsenburg..... | 257 | 10 | 4,146 | 25 |
| Mutual..... | Mutual Coal Co..... | Walsenburg..... | 17 | 70 | 3,224 | 250 |
| Bunker Hill..... | Steve Mattivi & Sons..... | Rapson..... | 100 | 3 | 2,000 | 20 |
| Leader..... | Leader Coal Co..... | Walsenburg..... | 150 | 5 | 1,805 | 15 |
| Niggerhead..... | Niggerhead Mining Co..... | Agular..... | 41 | 16 | 1,276 | ..... |
| George No. 2..... | Sam George & Sons..... | La Veta..... | 238 | 4 | 1,258 | 12 |
| Fruth..... | Geo. Fruth..... | Walsenburg..... | 55 | 9 | 1,382 | ..... |

TABLE D—1932—Continued.
HUERFANO COUNTY—Continued

| Name of Mine | Name of Company | Mine Post Office | Character of Coal | Number of Days Worked | Average No. of Men Employed | Total Number of Tons Produced | Capacity of Mine per Day, Tons |
|-------------------|-----------------------|------------------|-------------------|-----------------------|-----------------------------|-------------------------------|--------------------------------|
| Caddell No. 3 | Caddell Coal Co. | Walsenburg | Bituminous | 125 | 8 | 1,253 | 20 |
| Round Oak | Giordano Coal Co. | Walsenburg | Bituminous | 220 | 3 | 493 | 6 |
| La Veta Pass | J. Murrell | La Veta | Bituminous | 132 | 2 | 351 | 5 |
| Costa | Costa Coal Co. | Toitec | Bituminous | 90 | 2 | 300 | 10 |
| Bunker Hill No. 2 | Sours Coal Co. | Walsenburg | Bituminous | 44 | 4 | 105 | 10 |
| Bunker Hill No. 3 | Myers & West | Rapson | Bituminous | 100 | 2 | 165 | 10 |
| Chapparal Canon | L. V. Powell | La Veta | Bituminous | 65 | 1 | 119 | 10 |
| Klikus | Klikus Coal Co. | La Veta | Bituminous | 200 | 3 | 100 | 1 |
| Caddell No. 1 | Sweet Bros. | Walsenburg | Bituminous | 30 | 2 | 40 | 1 |
| Number | of Mines operated: 32 | | | 108.3 | 1476 | 678,492 | |

JACKSON COUNTY

| | | | | | | | |
|-------------------------|----------------------|----------|-----------------|-------|----|--------|-----|
| Moore No. 1 & Strip Pit | North Park Coal Co. | Coalmont | Semi-bituminous | 192 | 53 | 41,127 | 700 |
| Marr | Geo. M. Barnell | Walden | Semi-bituminous | 193 | 4 | 2,192 | |
| Conrad | Geo. M. Barnell | Walden | Semi-bituminous | 25 | 1 | 60 | |
| Mitchell | Geo. W. Davidson | Walden | Semi-bituminous | 34 | 1 | 103 | |
| Number | of Mines operated: 4 | | | 191.5 | 59 | 43,482 | |

JEFFERSON COUNTY

| | | | | | | | |
|--------------|-----------------------|-------------------|----------------|-------|-----|---------|-----|
| Leyden No. 3 | Leyden Lignite | Leyden via Golden | Sub-bituminous | 248.8 | 87 | 109,557 | 750 |
| Christensen | Good Fuel Co. | Littleton | Sub-bituminous | 296 | 26 | 18,920 | 160 |
| Blue Bird | Blue Bird Mines, Inc. | Morrison | Sub-bituminous | 170 | 9 | 3,083 | |
| Unity | Unity Coal Co. | Littleton | Sub-bituminous | 85 | 14 | 820 | 60 |
| Number | of Mines operated: 4 | | | 235.9 | 136 | 132,380 | |

LA PLATA COUNTY

| | | | | | | |
|--------------------|----------------------------|-------------------------|-------|----|--------|-------|
| Castle..... | Castle Coal & M. Co..... | Durango..... | 257 | 6 | 4,653 | 50 |
| O. K..... | O. K. Coal Co..... | Durango..... | 96.5 | 10 | 4,245 | 50 |
| Triangle..... | Triangle Coal Co..... | Durango..... | 104 | 5 | 3,037 | ..... |
| Sunshine..... | Sunshine Coal Co..... | Durango..... | 140 | 3 | 2,606 | ..... |
| Morning Star..... | Baudino & Co..... | Durango..... | 192 | 3 | 2,569 | 13 |
| Black Diamond..... | Black Diamond Coal Co..... | Durango..... | 135 | 4 | 2,171 | 20 |
| Valley View..... | Valley View Coal Co..... | Mancos..... | 190 | 3 | 1,235 | 15 |
| Peerless..... | Peerless Coal Co..... | Durango..... | 106 | 3 | 1,278 | ..... |
| Durango..... | Durango Coal Co..... | Durango..... | 95.7 | 3 | 533 | 6 |
| Fort Lewis..... | Xavier Dutur..... | Kline..... | 115.5 | 2 | 543 | 15 |
| Tipotsch..... | Frank Tipotsch..... | Hesperus..... | 179 | 1 | 482 | ..... |
| Excelsior..... | Chas. Batchelor..... | Bayfield..... | 124 | 2 | 426 | 10 |
| Morning Glory..... | Chas. Yingling..... | Bayfield..... | 84 | 1 | 423 | 25 |
| Shamrock..... | Bierce & Taylor..... | Bayfield..... | 105 | 3 | 404 | ..... |
| Superior..... | Superior Fuel Co..... | Durango..... | 124 | 2 | 312 | ..... |
| Soda Springs..... | Wood & Wood..... | Aztec (New Mexico)..... | 90 | 2 | 287 | ..... |
| Hunt..... | Wm. Hunt..... | Hesperus..... | 52 | 2 | 245 | 6 |
| Pine River..... | Herman Schultz..... | Bayfield..... | 93 | 1 | 179 | ..... |
| Hammond..... | M. F. Leonard..... | Bayfield..... | 56 | 1 | 175 | ..... |
| Ellidge..... | Frank Ellidge..... | Durango..... | 60 | 2 | 100 | ..... |
| Rasmussen..... | H. J. Rasmussen..... | Hesperus..... | 60 | 1 | 75 | ..... |
| | of Mines operated: 21..... | | 127.6 | 60 | 25,978 | |

LARIMER COUNTY

| | | | | | | |
|--------------------|---------------------------|-----------|-------|----|-------|-------|
| Benson..... | Lowe Coal Co..... | Carr..... | 205 | 5 | 2,151 | 20 |
| Hackman No. 1..... | Hackman Coal Co..... | Carr..... | 139 | 3 | 977 | 10 |
| Ayshire..... | Ayshire Coal Co..... | Carr..... | 145 | 3 | 794 | 15 |
| Pioneer..... | Walter Overcamp..... | Carr..... | 284 | 3 | 497 | ..... |
| White Rose..... | White Rose Coal Co..... | Carr..... | 105 | 3 | 260 | 10 |
| | of Mines operated: 5..... | | 175.5 | 17 | 4,679 | |

TABLE D—1932—Continued.

LAS ANIMAS COUNTY

| Name of Mine | Name of Company | Mine Post Office | Character of Coal | Number of Days Worked | Average No. of Men Employed | Total Num-ber of Tons Produced | Capacity of Mine per Day, Tons |
|------------------|------------------------------|------------------|-------------------|-----------------------|-----------------------------|--------------------------------|--------------------------------|
| Frederick | Colorado Fuel & Iron Co. | Valdez | Bituminous | 60.1 | 370 | 121,206 | 1800 |
| Morley | Colorado Fuel & Iron Co. | Morley | Bituminous | 71.6 | 337 | 114,605 | 1800 |
| Toller | Colorado Fuel & Iron Co. | Tollerburg | Bituminous | 60 | 25 | 2,415 | 1800 |
| Delagua | Victor-American Fuel Co. | Delagua | Bituminous | 132.1 | 346 | 196,204 | 1800 |
| Broadhead No. 9 | Temple Fuel Co. | Broadhead | Bituminous | 143 | 205 | 90,110 | 1800 |
| Kenneth | Vickers Coal Co. | Rugby | Bituminous | 159 | 84 | 60,791 | 500 |
| Boncarbo | American Smelting & Ref. Co. | Cokedale | Bituminous | 76 | 117 | 58,183 | 1200 |
| Ludlow | Huerfano Coal Co. | Ludlow | Bituminous | 124.4 | 108 | 51,750 | 600 |
| Empire | Empire Coal Co. | Agullar | Bituminous | 61.2 | 53 | 30,205 | 600 |
| Bear Canon No. 6 | Bear Canon Coal Co. | Vallerso | Bituminous | 75.2 | 79 | 27,947 | 1000 |
| Creston | Jewell Collieries Corp. | Agullar | Bituminous | 104 | 45 | 18,614 | 250 |
| Dix | Dick Coal Co. | Dicks | Bituminous | 128.7 | 22 | 17,657 | 300 |
| Sopris No. 1 | Deldosso Coal Co. | Sopris | Bituminous | 120 | 32 | 14,397 | 300 |
| Engle | Deldosso Coal Co. | Sopris | Bituminous | 149 | 4 | 2,527 | 300 |
| Rapson | Plo Mitchell | Rapson | Bituminous | 121.5 | 29 | 14,111 | 150 |
| Thor | Thor Fuel Co. | Trinidad | Bituminous | 27.5 | 69 | 7,820 | 280 |
| Eureka | Phoenix Fuel Co. | Trinidad | Bituminous | 54 | 28 | 5,586 | 150 |
| Jeffries | Jeffries Fuel Co. | Trinidad | Bituminous | 306 | 5 | 4,265 | 35 |
| Bowen | Home Fuel & Supply Co. | Trinidad | Bituminous | 175 | 5 | 2,948 | 15 |
| Baldy | Baldy Coal Co. | Trinidad | Bituminous | 233 | 3 | 1,770 | 7 |
| Daisy | Daisy Coal Co. | Agullar | Bituminous | 237 | 5 | 1,665 | 10 |
| La Belle | Wm. Morgan | Trinidad | Bituminous | 162 | 6 | 1,546 | 10 |
| Frisco | Frisco Coal Co. | Trinidad | Bituminous | 249 | 3 | 1,493 | 8 |
| Beboar | A. T. Tucker | Trinidad | Bituminous | 247 | 4 | 1,467 | 8 |
| Forbes | W. E. Riggs | Trinidad | Bituminous | 301 | 3 | 1,451 | 8 |
| Santa Fe | Santa Fe Coal Co. | Trinidad | Bituminous | 110.5 | 3 | 1,288 | 10 |
| Pritchard | Chas. Pritchard | Trinidad | Bituminous | 112 | 2 | 740 | 10 |

LAS ANIMAS COUNTY—Continued

| | | | | | | | |
|--------------|------------------------|-----------|------------|------|------|---------|-------|
| Gen. | Gem Coal Co. | Aguliar. | Bituminous | 120 | 4 | 656 | 25 |
| Fishers Peak | Walter Marsh. | Trinidad | Bituminous | 143 | 1 | 636 | 3 |
| Lakeview | Nick Riggo. | Trinidad | Bituminous | 125 | 2 | 519 | ..... |
| Star | Star Coal Co. | Aguliar. | Bituminous | 139 | 2 | 501 | ..... |
| Blue Blaze | Shew & Bryan | Trinidad | Bituminous | 139 | 2 | 460 | 5 |
| Jackson | Standard Coal Co. | Trinidad | Bituminous | 180 | 2 | 360 | ..... |
| Flag | Joe Rogerio. | Trinidad | Bituminous | 175 | 3 | 332 | 10 |
| Pickford | Boaglio Coal Co. | Trinidad | Bituminous | 108 | 3 | 332 | ..... |
| Ferrill | John Hollingsworth. | Trinidad | Bituminous | 159 | 3 | 307 | ..... |
| Martinez | R. Martinez. | Cokedale. | Bituminous | 200 | 1 | 305 | ..... |
| Valley | Valley Coal Co. | Sopris. | Bituminous | 74 | 2 | 282 | ..... |
| Wiley | John Miller | Cokedale. | Bituminous | 102 | 2 | 280 | ..... |
| Timber Canon | S. C. Cook. | Trinidad | Bituminous | 44 | 4 | 207 | ..... |
| Hill Top | Trinidad Coal Co. | Trinidad | Bituminous | 115 | 2 | 150 | 5 |
| Motarano | Motarano & Son | Sopris. | Bituminous | 50 | 2 | 129 | 5 |
| Bagley | Ideal Coal Trading Co. | Trinidad | Bituminous | 32 | 1 | 115 | ..... |
| Crystal | Guillermo Bowman. | Dicks | Bituminous | 100 | 1 | 80 | 3 |
| Storz | A. C. Storz. | Weston | Bituminous | 50 | 1 | 75 | 2 |
| Vigil | Vigil Fuel Co. | Valdez. | Bituminous | 13 | 2 | 35 | 3 |
| Ruby | M. Jimenez. | Cokedale. | Bituminous | 12 | 1 | 15 | ..... |
| Number | of Mines operated: 47. | | | 98.6 | 2033 | 858,537 | |

MESA COUNTY

| | | | | | | | |
|--------------|------------------------------|-----------------|------------------|-------|----|--------|-------|
| Cameo | McNeil Coal Corp. | Cameo. | Semi-bituminous. | 57 | 45 | 26,701 | 600 |
| Mt. Garfield | B. Garhart. | Palisade | Semi-bituminous. | 254 | 9 | 7,184 | ..... |
| Garfield | Garfield Coal Co. | Palisade | Semi-bituminous. | 144 | 10 | 6,340 | 100 |
| Palisade | Palisade Clean Heat Coal Co. | Palisade | Semi-bituminous. | 189 | 10 | 6,335 | ..... |
| P. V. | Kovak & Skoda. | Cameo. | Semi-bituminous. | 180.7 | 3 | 2,673 | 25 |
| Stove Canon | Stove Canon Mine Co. | Fruita. | Semi-bituminous. | 163 | 4 | 2,458 | 40 |
| McGinley | Wm. McGinley | Grand Junction. | Bituminous | 237 | 2 | 2,175 | 10 |
| Stokes | W. D. Stokes | Palisade | Semi-bituminous. | 144 | 4 | 2,043 | 80 |
| Riverside | Riverside Coal Co. | Palisade | Semi-bituminous. | 162 | 5 | 1,846 | ..... |
| Winger | Clark Coal Co. | Palisade. | Semi-bituminous. | 91 | 3 | 1,809 | 30 |

TABLE D—1932—Continued.
MESA COUNTY—Continued

| Name of Mine | Name of Company | Mine Post Office | Character of Coal | Number of Days Worked | Average No. of Men Employed | Total Number of Tons Produced | Capacity of Mine per Day, Tons |
|------------------------|------------------------------|---------------------|----------------------|-----------------------|-----------------------------|-------------------------------|--------------------------------|
| Midwest..... | Midwest Red Arrow Co..... | Palisade..... | Semi-bituminous..... | 187 | 6 | 1,803 | ..... |
| Hidden Treasure..... | Hidden Treasure Coal Co..... | Fruita..... | Bituminous..... | 117 | 3 | 1,442 | 40 |
| Williams..... | Williams Coal Co..... | Grand Junction..... | Semi-bituminous..... | 133 | 3 | 1,251 | ..... |
| Anchor No. 2..... | Anchor Coal Leasing Co..... | Grand Junction..... | Bituminous..... | 132 | 2 | 823 | 30 |
| Farmers Mutual..... | Farmers Mutual Coal Co..... | Grand Junction..... | Bituminous..... | 204 | 3 | 762 | 25 |
| Peacock..... | Peacock Coal Co..... | Grand Junction..... | Bituminous..... | 230 | 3 | 709 | 4 |
| Mt. Lincoln..... | Mt. Lincoln Coal Co..... | Palisade..... | Semi-bituminous..... | 134 | 2 | 514 | 5 |
| Hunter..... | W. W. Gray..... | Fruita..... | Semi-bituminous..... | 151 | 2 | 511 | 10 |
| Corcoran..... | Carmahan & Phillips..... | Grand Junction..... | Semi-bituminous..... | 101 | 2 | 486 | ..... |
| Coal Gulch..... | Coal Gulch Coal Co..... | Loma..... | Semi-bituminous..... | 203 | 1 | 475 | 10 |
| Grasso..... | Nuncio Grasso..... | Grand Junction..... | Bituminous..... | 105 | 2 | 473 | 10 |
| Liberty (Nearing)..... | George McMillin..... | Fruita..... | Bituminous..... | 98 | 2 | 463 | ..... |
| Big Tree..... | Ralph Talarico..... | Grand Junction..... | Bituminous..... | 120 | 3 | 360 | 25 |
| Thomas..... | Thomas Coal Co..... | Grand Junction..... | Bituminous..... | 90 | 3 | 275 | 5 |
| Mundell..... | J. W. Mundell..... | Grand Junction..... | Bituminous..... | 200 | 2 | 220 | ..... |
| Crescent..... | W. F. Jarvis..... | Grand Junction..... | Bituminous..... | 60 | 3 | 174 | 50 |
| Waldron..... | Panther Coal Co..... | Palisade..... | Semi-bituminous..... | 25 | 3 | 25 | ..... |
| Number | of Mines operated: 27..... | | | 125.1 | 139 | 70,330 | |
| MOFFAT COUNTY | | | | | | | |
| Collom..... | Ute Coal Co..... | Axial..... | Bituminous..... | 118 | 2 | 1,577 | ..... |
| Hart..... | Thomas Green..... | Craig..... | Bituminous..... | 108 | 2 | 839 | 40 |
| Shaver..... | Phelan & Shaver..... | Axial..... | Bituminous..... | 67 | 2 | 404 | 20 |
| Whitlock..... | E. E. Whitlock..... | Hamilton..... | Bituminous..... | 60 | 2 | 210 | ..... |
| Wisconsin..... | Wisconsin Coal Co..... | Lay..... | Bituminous..... | 90 | 2 | 150 | 1 |
| Shelton..... | H. D. Shelton..... | Price Creek..... | Bituminous..... | 25 | 1 | 35 | ..... |
| Number | of Mines operated: 6..... | | | 82.8 | 11 | 3,215 | |

TABLE D—1932—Continued.

PARK COUNTY

| Name of Mine | Name of Company | Mine Post Office | Character of Coal | Number of Days Worked | Average No. of Men Employed | Total Number of Tons Produced | Capacity of Mine per Day, Tons |
|-----------------|----------------------|------------------|-------------------|-----------------------|-----------------------------|-------------------------------|--------------------------------|
| American (King) | Dunkle & Johnson | Como | Bituminous | 180 | 3 | 300 | ..... |
| Number | of Mines operated: 1 | | | 180 | 3 | 300 | ..... |

PITKIN COUNTY

| | | | | | | | |
|---------|--------------------------|---------|------------|----|---|-------|-------|
| Placita | Placita Mine Leasing Co. | Placita | Bituminous | 85 | 9 | 1,852 | ..... |
| Number | of Mines operated: 1 | | | 85 | 9 | 1,852 | ..... |

RIO BLANCO COUNTY

| | | | | | | | |
|----------------|-----------------------|---------|------------|-------|----|-------|-------|
| Pollard | Electric Coal Co. | Meeker | Bituminous | 237 | 3 | 2,144 | 50 |
| McKee | Electric Coal Co. | Meeker | Bituminous | 46 | 1 | 119 | 10 |
| New Pollard | C. F. Pollard | Meeker | Bituminous | 258.5 | 2 | 2,085 | ..... |
| Reinart | R. C. Reinart | Meeker | Bituminous | 233 | 1 | 747 | ..... |
| Lion Canon | Hart & Son | Meeker | Bituminous | 155 | 2 | 671 | 10 |
| Johnny Boy | Hart & Son | Meeker | Bituminous | 46 | 2 | 184 | 5 |
| Nine Mile Hill | Thos. D. Foreman | Meeker | Bituminous | 106 | 1 | 635 | 6 |
| Fairfield | C. F. Fairfield | Meeker | Bituminous | 110 | 2 | 500 | ..... |
| Sulphur Creek | Claude Boyd | Meeker | Bituminous | 65 | 1 | 161 | 3 |
| Douglas Creek | Jones & Trachta | Rangely | Bituminous | 10 | 1 | 32 | 10 |
| Number | of Mines operated: 10 | | | 137.5 | 16 | 7,278 | ..... |

ROUTT COUNTY

| | | | | | | | |
|--------------------|----------------------------|-------------------|------------|-------|-----|---------|-------|
| Moffat No. 1 and 2 | Moffat Coal Co. | Oak Creek | Bituminous | 75.5 | 144 | 124,825 | 4000 |
| Harris | Colorado & Utah Coal Co. | Mt. Harris | Bituminous | 53.8 | 3 | 101,824 | 4000 |
| Hayden | Hayden Coal Co. | Haybro. | Bituminous | 67.3 | 112 | 90,083 | 1500 |
| Pinnacle | Victor-American Fuel Co. | Oak Creek | Bituminous | 63.8 | 114 | 73,682 | 1500 |
| Wadge | Victor-American Fuel Co. | Mt. Harris | Bituminous | 24.9 | 33 | 20,702 | 1000 |
| Bear River | Bear River Coal Co. | Bear River | Bituminous | 74 | 66 | 45,411 | 1000 |
| Keystone | Keystone Coal Co. | Routt | Bituminous | 60.1 | 69 | 39,184 | 1000 |
| P. K. No. 1 | Pinnacle-Kemmerer Fuel Co. | Mt. Harris | Bituminous | 87.8 | 63 | 31,991 | 600 |
| McNell | McNell Coal Corporation | McGregor | Bituminous | 115.5 | 51 | 27,946 | 250 |
| Argo Gulch | Geo. T. Rolfe | Oak Creek | Bituminous | 195 | 6 | 6,209 | 40 |
| Seven Points | Western Hard Coal Co. | Phippsburg | Bituminous | 103 | 16 | 2,757 | ..... |
| Babson | Babson Coal Co. | Hayden | Bituminous | 144 | 3 | 1,550 | 40 |
| Butcher Knife | Ritter & McShane | Steamboat Springs | Bituminous | 77 | 2 | 1,363 | 30 |
| Hayden Valley | Hayden Valley M. Coal Co. | Hayden | Bituminous | 148 | 3 | 1,199 | 15 |
| Morgan | John Pollo | Steamboat Springs | Bituminous | 190 | 2 | 1,136 | 10 |
| Ritchneg | Little Pinnacle Coal Co. | Bear River | Bituminous | 137 | 2 | 1,108 | 10 |
| Black Cat | Black Cat Coal Co. | Bear River | Bituminous | 96 | 5 | 596 | 20 |
| Block | E. H. Zimmerman | Steamboat Springs | Bituminous | 105 | 2 | 582 | 50 |
| Amos | Amos Coal Co. | McGregor | Bituminous | 185 | 1 | 423 | 50 |
| Premium | Fruth & Micheletti | Milner | Bituminous | 61 | 1 | 380 | 30 |
| Clark Gulch | Clark Coal Co. | Milner | Bituminous | 168 | 3 | 364 | 8 |
| Jones | Jones Coal Co. | Bear River | Bituminous | 110 | 1 | 361 | 15 |
| Fish Creek | Kaspar Webberkirch | Hayden | Bituminous | 43 | 1 | 160 | ..... |
| Chergo | Tom Chergo | Oak Creek | Bituminous | 71 | 1 | 130 | 10 |
| Scott | J. E. Webber | Pagoda | Bituminous | 38 | 1 | 128 | ..... |
| Apex | Geo. Steel & Co. | Oak Creek | Bituminous | 41 | 1 | 125 | 5 |
| Edna | Edna Coal Co. | Oak Creek | Bituminous | 20 | 1 | 34 | ..... |
| | of Mines operated: 27 | | | 72.4 | 838 | 574,253 | ..... |

SAN MIGUEL COUNTY

| | | | | | | | |
|----------|----------------------|---------|----------------|-----|---|-----|-------|
| Gray | L. J. Gray | Norwood | Sub-bituminous | 290 | 1 | 324 | ..... |
| Horton | Horton Coal Co. | Norwood | Sub-bituminous | 110 | 1 | 264 | ..... |
| Marriott | Wm. Marriott | Norwood | Sub-bituminous | 90 | 3 | 161 | ..... |
| Galloway | Louis Veo | Norwood | Sub-bituminous | 45 | 2 | 50 | ..... |
| Elder | Elder Coal Co. | Norwood | Sub-bituminous | 50 | 1 | 33 | ..... |
| | of Mines operated: 5 | | | 90 | 8 | 832 | ..... |

TABLE D—1932—Continued.

WELD COUNTY

| Name of Mine | Name of Company | Mine Post Office | Character of Coal | Number of Days Worked | Average No. of Men Employed | Total Number of Tons Produced | Capacity of Mine per Day, Tons |
|---------------------|----------------------------------|------------------|---------------------|-----------------------|-----------------------------|-------------------------------|--------------------------------|
| Columbine..... | Rocky Mountain Fuel Co..... | Serene..... | Sub-bituminous..... | 237.9 | 213 | 278,678 | 1600 |
| Grant..... | Rocky Mountain Fuel Co..... | Frederick..... | Sub-bituminous..... | 150.6 | 120 | 95,134 | 1000 |
| Clayton..... | Clayton Coal Co..... | Erie..... | Sub-bituminous..... | 166 | 195 | 151,585 | 2000 |
| Morrison..... | Clayton Coal Co..... | Erie..... | Sub-bituminous..... | 128 | 93 | 82,825 | 1500 |
| Boulder Valley..... | Boulder Valley Co..... | Erie..... | Sub-bituminous..... | 161 | 120 | 207,515 | 2000 |
| Imperial..... | Imperial Coal Co..... | Erie..... | Sub-bituminous..... | 153 | 141 | 123,747 | 1500 |
| Puritan..... | National Fuel Co..... | Frederick..... | Sub-bituminous..... | 129.5 | 154 | 142,767 | ..... |
| Baum..... | Consolidated Coal & Coke Co..... | Dacono..... | Sub-bituminous..... | 199 | 117 | 102,684 | 1000 |
| Russell..... | W. E. Russell Coal Co..... | Frederick..... | Sub-bituminous..... | 188 | 66 | 92,406 | 700 |
| Sterling..... | McNeil Coal Corporation..... | Dacono..... | Sub-bituminous..... | 154 | 72 | 77,630 | 1000 |
| Shamrock..... | Shamrock Coal Co..... | Frederick..... | Sub-bituminous..... | 107.5 | 86 | 62,925 | 800 |
| Liley..... | Liley Coal & Land Co..... | Frederick..... | Sub-bituminous..... | 203 | 39 | 38,479 | 350 |
| Monroe..... | Monroe Coal Co..... | Lafayette..... | Sub-bituminous..... | 118 | 23 | 6,631 | 50 |
| White Ash..... | White Ash Coal Co..... | La Salle..... | Sub-bituminous..... | 151 | 5 | 2,990 | 8 |
| Buddy..... | Buddy Coal Co..... | La Salle..... | Sub-bituminous..... | 110 | 8 | 2,378 | 50 |
| Sunset..... | Sunset Fuel Co..... | La Salle..... | Sub-bituminous..... | 98 | 9 | 864 | ..... |
| Pickett (Hill)..... | L. W. Pickett..... | Briggsdale..... | Sub-bituminous..... | 90 | 4 | 792 | 25 |
| Number | of Mines operated: 17..... | | | 166.1 | 1465 | 1,470,030 | |
| Total Number | of Mines operated: 345..... | | | 134.7 | 8786 | 5,616,525 | |

TABLE D—1933.

SHOWING BY COUNTIES, MINES OPERATED, NAME OF OPERATOR AND ADDRESS OF MINE, CHARACTER OF COAL, NUMBER OF DAYS WORKED, AVERAGE NUMBER OF MEN EMPLOYED, TOTAL NUMBER OF TONS OF COAL PRODUCED IN 1933 AND CAPACITY OF MINE PER DAY IN TONS.

ADAMS COUNTY

| Name of Mine | Name of Company | Mine Post Office | Character of Coal | Number of Days Worked | Average No. of Men Employed | Total Number of Tons Produced | Capacity of Mine per Day, Tons |
|---------------|----------------------|------------------|-------------------|-----------------------|-----------------------------|-------------------------------|--------------------------------|
| Blue Ribbon | Blue Ribbon Coal Co. | Lafayette | Sub-bituminous | 103 | 4 | 311 | ..... |
| Number | of Mines operated: 1 | | | 103 | 4 | 311 | |

ARAPAHOE COUNTY

| | | | | | | | |
|---------------|----------------------|------------|----------------|----|---|-----|----|
| Air Line | Deer Trail Coal Co. | Deer Trail | Sub-bituminous | 50 | 2 | 180 | 10 |
| Number | of Mines operated: 1 | | | 50 | 2 | 180 | |

ARCHULETA COUNTY

| | | | | | | | |
|---------------|----------------------|-----------------|----------------|------|---|-----|-------|
| Cox | T. L. Cox | Pasoga Springs | Sub-bituminous | 162 | 1 | 218 | ..... |
| Bellino | Antonito & Bellino | Pasoga Junction | Sub-bituminous | 84 | 1 | 207 | ..... |
| Nossaman | W. T. Nossaman | Pasoga Springs | Sub-bituminous | 120 | 1 | 164 | ..... |
| Hardman | H. L. Hardman | Dyke | Sub-bituminous | 60 | 1 | 121 | ..... |
| McBroom | Chas. McBroom | Dyke | Sub-bituminous | 10 | 1 | 47 | ..... |
| Number | of Mines operated: 5 | | | 87.2 | 5 | 757 | |

TABLE D—1933—Continued.
BOULDER COUNTY

| Name of Mine | Name of Company | Mine Post Office | Character of Coal | Number of Days Worked | Average No. of Men Employed | Total Number of Tons Produced | Capacity of Mine per Day, Tons |
|--------------------------|-------------------------------|------------------|---------------------|-----------------------|-----------------------------|-------------------------------|--------------------------------|
| Industrial..... | Rocky Mountain Fuel Co. | Superior..... | Sub-bituminous..... | 151.7 | 191 | 93,609 | 800 |
| Vulcan..... | Rocky Mountain Fuel Co. | Lafayette..... | Sub-bituminous..... | 145.3 | 63 | 33,779 | 250 |
| Standard..... | Rocky Mountain Fuel Co. | Lafayette..... | Sub-bituminous..... | 35 | 47 | 7,028 | 300 |
| Monarch No. 2..... | National Fuel Co. | Broomfield..... | Sub-bituminous..... | 148.8 | 113 | 92,302 | 700 |
| Hi-Way..... | Louisville-Lafayette Coal Co. | Louisville..... | Sub-bituminous..... | 162 | 114 | 84,889 | 700 |
| Black Diamond No. 2..... | Black Diamond Fuel Co. | Lafayette..... | Sub-bituminous..... | 305 | 67 | 54,005 | 600 |
| Crown..... | David Allan..... | Gorham..... | Sub-bituminous..... | 210 | 76 | 53,117 | 500 |
| Gorham..... | Domestic Coal Co. | Boulder..... | Sub-bituminous..... | 207 | 14 | 8,184 | 100 |
| Eldorado..... | Eldorado Coal Co. | Gorham..... | Sub-bituminous..... | 187 | 8 | 5,888 | 60 |
| Peerless..... | Peerless Coal Co. | Gorham..... | Sub-bituminous..... | 228 | 7 | 5,907 | 75 |
| Fireside..... | Ko-Z Coal Co. | Louisville..... | Sub-bituminous..... | 298.5 | 9 | 5,478 | ..... |
| High View..... | High View Coal Co. | Gorham..... | Sub-bituminous..... | 174 | 6 | 4,462 | 60 |
| New Ross..... | Ross Coal Co. | Louisville..... | Sub-bituminous..... | 231 | 6 | 3,869 | ..... |
| Pluto No. 2..... | Pluto Coal Co. | Superior..... | Sub-bituminous..... | 183 | 8 | 3,503 | 50 |
| Banner..... | Banner Coal Co. | Lafayette..... | Sub-bituminous..... | 220 | 11 | 3,381 | 60 |
| Arrow..... | Arrow Coal Co. | Superior..... | Sub-bituminous..... | 135 | 7 | 2,445 | 60 |
| Pittsburgh..... | Pittsburgh Coal Co. | Gorham..... | Sub-bituminous..... | 158 | 3 | 1,161 | 20 |
| Cactus..... | Cactus Coal Co. | Boulder..... | Sub-bituminous..... | 271 | 2 | 996 | 20 |
| Sunrise..... | Sunrise Coal Co. | Gorham..... | Sub-bituminous..... | 170 | 4 | 900 | ..... |
| North Slope No. 6..... | Mann & Hunziker..... | Boulder..... | Sub-bituminous..... | 158 | 3 | 847 | ..... |
| Paramount..... | Paramount Coal Co. | Lafayette..... | Sub-bituminous..... | 52 | 4 | 517 | 7 |
| Premiere..... | Clausen & Clarkson..... | Gorham..... | Sub-bituminous..... | 120 | 3 | 322 | 8 |
| Pine Cliff..... | Tri-State Coal Ass'n. | Boulder..... | Sub-bituminous..... | 90 | 4 | 255 | 10 |
| Indino No. 2..... | J. D. Sloan..... | Gorham..... | Sub-bituminous..... | 45 | 2 | 172 | ..... |
| Albion..... | Albion Coal Co. | Gorham..... | Sub-bituminous..... | 30 | 4 | 76 | ..... |
| Number | of Mines operated: 25..... | ..... | ..... | 168 | 776 | 467,091 | ..... |

DELTA COUNTY

| | | | | | | |
|--------------------|-----------------------------------|----------------------|-------|----|--------|-------|
| King..... | Juanita Coal & Coke Co..... | Bituminous..... | 55 | 34 | 22,828 | 1000 |
| Green Valley..... | Green Valley Coal Co..... | Semi-bituminous..... | 292 | 5 | 4,997 | 40 |
| Winton..... | Winton Coal Co..... | Sub-bituminous..... | 251 | 3 | 3,583 | 75 |
| Red Canon..... | Red Canon Coal Co..... | Cedaredge..... | 242 | 4 | 3,169 | 40 |
| States..... | States Hall Coal Co..... | Semi-bituminous..... | 171.5 | 3 | 1,750 | 100 |
| Red Mountain..... | States Hall Coal Co..... | Cedaredge..... | 192 | 4 | 1,298 | 40 |
| Paonia..... | Paonia Farmers Coal Co..... | Semi-bituminous..... | 95 | 2 | 1,667 | 30 |
| Western Star..... | Western Star Coal Co..... | Cedaredge..... | 246 | 2 | 1,463 | 30 |
| Independent..... | Independent Coal Co..... | Semi-bituminous..... | 192 | 3 | 1,397 | ..... |
| Bennett..... | Bennett Coal Co..... | Sub-bituminous..... | 209 | 2 | 865 | 12 |
| Black Diamond..... | Black Diamond Coal Co..... | Cedaredge..... | 56 | 4 | 614 | 40 |
| Gelwick..... | Gelwick Coal Co..... | Paonia..... | 79 | 2 | 527 | 20 |
| Fitzsimmons..... | Hice Coal Co..... | Paonia..... | 89 | 2 | 527 | 5 |
| Converse..... | Converse Coal Co..... | Paonia..... | 154 | 1 | 509 | 5 |
| Rollins..... | Rollins Fuel Co..... | Delta..... | 785 | 1 | 427 | ..... |
| Vowell..... | Tex Vowell..... | Lazeare..... | 80 | 2 | 150 | 10 |
| Burdick..... | Foster Bros..... | Hotchkiss..... | 100 | 1 | 150 | 8 |
| | Number of Mines operated: 17..... | | 115.1 | 75 | 45,921 | |

ELBERT COUNTY

| | | | | | | |
|---------------|----------------------------------|---------------|-------|---|-------|-------|
| Wright..... | Wright Barker..... | Matheson..... | 213 | 2 | 2,693 | 50 |
| Mascot..... | Mascot Coal, Oil & Clay Co..... | Matheson..... | 118 | 2 | 1,088 | ..... |
| Fondis..... | Fondis Coal Co..... | Fondis..... | 125 | 1 | 237 | 30 |
| McFarley..... | Joseph McFarley..... | Fondis..... | 180 | 1 | 160 | 2 |
| Fireside..... | John Slama..... | Matheson..... | 17 | 3 | 23 | 10 |
| | Number of Mines operated: 5..... | | 113.1 | 9 | 4,201 | |

TABLE D—1933—Continued.
EL PASO COUNTY

| Name of Mine | Name of Company | Mine Post Office | Character of Coal | Number of Days Worked | Average No. of Men Employed | Total Number of Tons Produced | Capacity of Mine per Day, Tons |
|----------------------|----------------------------|-----------------------|---------------------|-----------------------|-----------------------------|-------------------------------|--------------------------------|
| Pikeview..... | Pikes Peak Fuel Co..... | Colorado Springs..... | Sub-bituminous..... | 201 | 161 | 206,710 | 1100 |
| City Coal Mines..... | Colorado Springs Co..... | Colorado Springs..... | Sub-bituminous..... | 273 | 60 | 38,856 | 400 |
| Corley..... | Corley Coal Co..... | Colorado Springs..... | Sub-bituminous..... | 276 | 31 | 23,859 | 300 |
| Dixie..... | Corley Coal Co..... | Colorado Springs..... | Sub-bituminous..... | 132 | 6 | 1,697 | 100 |
| Jimmy Camp..... | Thomas Mining Co..... | Colorado Springs..... | Sub-bituminous..... | 238 | 24 | 16,711 | 100 |
| Altitude..... | Altitude Fuel Co..... | Colorado Springs..... | Sub-bituminous..... | 277 | 19 | 8,048 | ..... |
| Climax..... | Danville Coal Co..... | Colorado Springs..... | Sub-bituminous..... | 244 | 4 | 1,382 | 20 |
| Busy Bee..... | Busy Bee Coal Co..... | Colorado Springs..... | Sub-bituminous..... | 52 | 10 | 927 | 50 |
| Drennan..... | Drennan Coal Co..... | Colorado Springs..... | Sub-bituminous..... | 199 | 2 | 603 | 10 |
| Kurie..... | Kurie Coal Co..... | Colorado Springs..... | Sub-bituminous..... | 96 | 6 | 921 | ..... |
| Rush..... | Guy McPherson..... | Rush..... | Sub-bituminous..... | 30 | 4 | 113 | 15 |
| Number | of Mines operated: 11..... | ..... | ..... | 230.8 | 327 | 299,827 | ..... |

| FREMONT COUNTY | | | | | | | |
|----------------------------------|----------------------------------|-----------------|----------------------|-------|-----|---------|------|
| Chandler..... | Victor-American Fuel Co..... | Chandler..... | Bituminous..... | 142.3 | 269 | 103,923 | 1000 |
| Rockvale No. 2..... | John D. Cribbs..... | Rockvale..... | Bituminous..... | 162 | 44 | 22,661 | 350 |
| Rockvale No. 3..... | Colorado Fuel & Iron Co..... | Canon City..... | Bituminous..... | 291.6 | 44 | 49,663 | 400 |
| Canon..... | Canon-Reliance Coal Co..... | Canon City..... | Bituminous..... | 130 | 100 | 42,269 | 500 |
| Canon Monarch..... | Canon-Monarch Coal Co..... | Florence..... | Bituminous..... | 263 | 40 | 20,249 | 150 |
| Caldriola..... | Caldriola Coal Co..... | Florence..... | Semi-bituminous..... | 219 | 27 | 15,788 | 100 |
| Cedar Canon..... | Giuliano & Carpine Coal Co..... | Florence..... | Bituminous..... | 191 | 21 | 13,551 | 70 |
| Fremont..... | Giuliano & Carpine Coal Co..... | Florence..... | Bituminous..... | 146 | 36 | 9,067 | 55 |
| Canon Black Diamond Coal Co..... | Canon Black Diamond Coal Co..... | Florence..... | Bituminous..... | 163 | 28 | 9,848 | 150 |
| Griffiths..... | Griffiths Coal Co..... | Canon City..... | Bituminous..... | 217 | 14 | 8,361 | 75 |

FREMONT COUNTY—Continued

| | | | | | | |
|---------------------------|-------------------------------|-----------------|-------|-----|---------|-------|
| American Independent..... | American-Independent Coal Co. | Florence..... | 228.5 | 17 | 8,093 | 30 |
| South Magnet..... | Canon Quality Coal Co. | Rockvale..... | 150 | 22 | 7,472 | 50 |
| Rocchio..... | Rocchio Coal Co. | Coal Creek..... | 187 | 11 | 5,974 | 15 |
| Ideal..... | Double Dick Coal Co. | Florence..... | 250 | 15 | 5,759 | 100 |
| Double Dick..... | Double Dick Coal Co. | Florence..... | 28 | 30 | 1,233 | |
| Brookside..... | Orecchio Coal M. Co. | Florence..... | 170.8 | 13 | 5,756 | 30 |
| Bald..... | J. Bald Coal Co. | Florence..... | 208 | 13 | 4,771 | 50 |
| Willie No. 3..... | Sam Petry..... | Florence..... | 196 | 6 | 3,055 | 25 |
| Fawn Hollow..... | Fawn Hollow Coal Co. | Canon City..... | 147 | 7 | 2,807 | ..... |
| Bluff Springs..... | Bluff Springs Leasing Co. | Florence..... | 55 | 10 | 2,257 | ..... |
| Canon Imperial..... | Canon Imperial Coal Co. | Florence..... | 162 | 7 | 1,682 | 10 |
| Katnig..... | Florence Coal Co. | Florence..... | 190 | 4 | 1,385 | ..... |
| Newlan Creek..... | Perino Coal Co. | Florence..... | 132 | 6 | 1,200 | 20 |
| Canon Liberty..... | Canon Liberty Coal Co. | Canon City..... | 158 | 5 | 1,193 | 20 |
| Royal Gorge..... | Royal Gorge Coal Co. | Canon City..... | 100 | 11 | 1,046 | 35 |
| Peacock..... | Ranson Coal Co. | Florence..... | 119 | 3 | 1,093 | ..... |
| Willie No. 1..... | Paul Carsitio..... | Florence..... | 147 | 1 | 450 | 3 |
| Willie No. 2..... | James Brothers..... | Florence..... | 150 | 2 | 450 | 3 |
| Brewster No. 2..... | Brewster Coal Co. | Florence..... | 265 | 2 | 421 | 2 |
| Rockley..... | Moschetti Coal Co. | Florence..... | 60 | 7 | 361 | 6 |
| Canon District No. 2..... | Canon City Superior Coal Co. | Rockvale..... | 14 | 10 | 270 | 25 |
| Bassick..... | Bassick Coal Co. | Rockvale..... | 38 | 3 | 156 | ..... |
| Cuckoo No. 3..... | Cuckoo Coal Co. | Canon City..... | 154 | 2 | 150 | 1 |
| Digiacommo..... | Digiacommo Coal Co. | Coal Creek..... | 80 | 3 | 100 | 4 |
| Sunshine..... | Lloyd & Cappella Coal Co. | Coal Creek..... | 40 | 2 | 79 | 4 |
| Number..... | of Mines operated: 35 | ..... | 159.6 | 835 | 352,593 | ..... |

GARFIELD COUNTY

| | | | | | | |
|------------------------|------------------------------|-----------------------|-------|----|-------|-------|
| New Castle..... | W. G. McDonald..... | Glenwood Springs..... | 258 | 12 | 8,473 | 100 |
| Carbonera..... | Gilson Asphaltum Co. | Mack..... | 164.5 | 8 | 6,923 | 50 |
| North Midland..... | J. Q. McNatt..... | Glenwood Springs..... | 203 | 6 | 3,124 | 30 |
| South Canon No. 1..... | South Canon Mine Leasing Co. | Glenwood Springs..... | 25 | 10 | 1,699 | ..... |
| South Canon No. 2..... | South Canon Mine Leasing Co. | Glenwood Springs..... | 122 | 4 | 742 | 15 |
| Harvey Gap..... | James Le Donne..... | New Castle..... | 179 | 3 | 1,108 | 7 |
| Ziesentiss..... | Henry Ziesentiss..... | Rifle..... | 111 | 2 | 899 | 20 |

TABLE D—1933—Continued.
GARFIELD COUNTY—Continued

| Name of Mine | Name of Company | Mine Post Office | Character of Coal | Number of Days Worked | Average No. of Men Employed | Total Number of Tons Produced | Capacity of Mine per Day, Tons |
|--------------------|------------------------------|-----------------------|----------------------|-----------------------|-----------------------------|-------------------------------|--------------------------------|
| Earnest..... | J. F. Swiglow..... | Glenwood Springs..... | Bituminous..... | 102 | 3 | 892 | 6 |
| North Canon..... | Rifle Coal Mines, Inc..... | Rifle..... | Bituminous..... | 180 | 2 | 878 | 8 |
| Rauman..... | Rauman..... | Rifle..... | Bituminous..... | 224 | 3 | 860 | 7 |
| Silt..... | Llewellyn..... | Silt..... | Bituminous..... | 105 | 2 | 672 | 5 |
| Ohkraut..... | Frank Deboy..... | Glenwood Springs..... | Bituminous..... | 117 | 1 | 614 | ..... |
| Diamond..... | Diamond Fuel Co..... | Glenwood Springs..... | Bituminous..... | 295 | 2 | 399 | ..... |
| Estes..... | Estes..... | Rifle..... | Bituminous..... | 90 | 2 | 195 | ..... |
| Paradise..... | Angelo Bellodi..... | Glenwood Springs..... | Bituminous..... | 128 | 1 | 186 | ..... |
| Keystone..... | Church & Schlegel..... | New Castle..... | Bituminous..... | 100 | 2 | 123 | ..... |
| Number | of Mines operated: 16..... | ..... | ..... | 156.9 | 63 | 27,787 | ..... |
| GUNNISON COUNTY | | | | | | | |
| Crested Butte..... | Colorado Fuel & Iron Co..... | Crested Butte..... | Bituminous..... | 127.4 | 207 | 152,570 | 1200 |
| Somerset..... | Calumet Fuel Co..... | Somerset..... | Bituminous..... | 115.7 | 98 | 115,680 | 1500 |
| Oliver..... | Oliver Coal Co..... | Somerset..... | Semi-anthracite..... | 143.5 | 54 | 49,528 | 500 |
| Alpine..... | Rocky Mountain Fuel Co..... | Baldwin..... | Semi-bituminous..... | 118 | 60 | 34,234 | 350 |
| Bulkley No. 2..... | Crested Butte Coal Co..... | Crested Butte..... | Bituminous..... | 193 | 28 | 30,093 | 150 |
| Horace..... | Peter J. Diehl..... | Crested Butte..... | Anthracite..... | 90.5 | 60 | 10,539 | 250 |
| Bear..... | Tony Bear..... | Somerset..... | Bituminous..... | 185 | 6 | 4,976 | ..... |
| Hawks Nest..... | Clement Andin..... | Somerset..... | Bituminous..... | 170 | 3 | 2,218 | 13 |
| Richardson..... | Richardson Coal Co..... | Gunnison..... | Anthracite..... | 175 | 4 | 1,894 | 35 |
| Castle Rock..... | Castle Rock Coal Co..... | Gunnison..... | Semi-bituminous..... | 211 | 2 | 1,236 | 20 |

GUNNISON COUNTY--Continued

| Ohio Creek..... | Number | 114 | 4 | 1,163 | 3 |
|----------------------------|--------|-------|-----|---------|----|
| Carbon Creek..... | | 203 | 2 | 726 | 6 |
| Hinkle..... | | 112 | 2 | 416 | 10 |
| Baldwin Star..... | | 120 | 2 | 400 | |
| of Mines operated: 14..... | | 115.7 | 532 | 405,673 | |

HUERFANO COUNTY

| | | | | | | |
|------------------------|--------------------------|-----------------|-------|-----|---------|-------|
| Robinson No. 4..... | Colorado Fuel & Iron Co. | Farr..... | 196 | 239 | 204,444 | 1000 |
| Kebler No. 2..... | Colorado Fuel & Iron Co. | Tioga..... | 125 | 140 | 74,094 | 850 |
| Alamo No. 1..... | Alamo Coal Co. | Alamo..... | 196 | 52 | 28,449 | 1000 |
| Alamo No. 2..... | Barbour Coal Co. | Alamo..... | 140.7 | 80 | 53,263 | 1000 |
| Calumet No. 1..... | Calumet Fuel Co. | Delcarbon..... | 77.7 | 86 | 34,873 | 500 |
| Calumet No. 2..... | Calumet Fuel Co. | Delcarbon..... | 6 | 73 | 1,518 | ..... |
| Gordon..... | Gordon Coal Co. | Gordon..... | 194 | 54 | 36,263 | 400 |
| Pryor..... | Pryor Coal M. Co. | Pryor..... | 74.2 | 78 | 27,457 | 500 |
| Ravenwood..... | Callente Coal Co. | Ravenwood..... | 102 | 78 | 26,164 | 400 |
| Maitland..... | Callente Coal Co. | Ravenwood..... | 73 | 31 | 12,731 | 300 |
| Vesta..... | Minnequa Fuel Co. | Walsenburg..... | 149 | 28 | 17,612 | 300 |
| Ojo Canon..... | Peachey Coal Co. | La Veta..... | 225 | 38 | 16,285 | 100 |
| C. O. D. No. 1..... | Peachey Coal Co. | La Veta..... | 85 | 5 | 1,060 | 10 |
| C. O. D. No. 2..... | Peachey Coal Co. | La Veta..... | 40 | 3 | 159 | 4 |
| Spanish Peak..... | W. A. Ream Coal Co. | Tioga..... | 165 | 27 | 10,826 | 200 |
| Toltec..... | Aztec Coal M. Co. | Toltec..... | 77 | 35 | 10,216 | 150 |
| Black Hawk..... | Black Hawk Coal Co. | Walsenburg..... | 173 | 9 | 4,516 | ..... |
| Torrid..... | Torrid Coal Co. | Aguilar..... | 152 | 7 | 4,474 | 40 |
| Leader No. 1..... | Leader Coal Co. | Walsenburg..... | 113 | 5 | 1,399 | ..... |
| Leader No. 2..... | Red Ash Coal Co. | Walsenburg..... | 108 | 4 | 3,112 | ..... |
| Major..... | Major Coal Co. | Walsenburg..... | 87 | 14 | 3,177 | 75 |
| Bunker Hill No. 1..... | Steve Mattivi & Sons | Rapson..... | 120 | 7 | 1,600 | 20 |
| Bunker Hill No. 2..... | Sowers Coal Co. | Walsenburg..... | 96 | 8 | 1,104 | 15 |
| George No. 2..... | Sam George & Sons | La Veta..... | 247 | 7 | 1,425 | ..... |
| Caddell No. 1..... | P. & T. Coal Co. | Walsenburg..... | 139 | 3 | 1,055 | ..... |

TABLE D—1933—Continued.
 HUERFANO COUNTY—Continued

| Name of Mine | Name of Company | Mine Post Office | Character of Coal | Number of Days Worked | Average No. of Men Employed | Total Number of Tons Produced | Capacity of Mine per Day, Tons |
|---------------------------|---------------------------|------------------|-------------------|-----------------------|-----------------------------|-------------------------------|--------------------------------|
| Caddell No. 3 | Caddell Coal Co. | Walsenburg | Bituminous | 158 | 6 | 1,017 | 10 |
| Strawberry | Strawberry Coal Co. | Toltec | Bituminous | 150 | 3 | 800 | 15 |
| Round Oak | Giordino Coal Co. | Walsenburg | Bituminous | 250 | 2 | 785 | 3 |
| Murrell | James Murrell | La Veta | Bituminous | 220 | 3 | 667 | 3 |
| Spring Canon | Prosperity Coal Co. | Walsenburg | Bituminous | 230 | 2 | 373 | 15 |
| Round Cap | Bartuelo & Berte Coal Co. | Walsenburg | Bituminous | 60 | 2 | 140 | 3 |
| Number of Mines operated: | 31 | | | 139 | 1129 | 581,058 | |
| JACKSON COUNTY | | | | | | | |
| Moore No. 1 & Moore | North Park Coal | Coalmont | Sub-bituminous | 183 | 26 | 26,105 | 700 |
| Strip Pit | Geo. M. Barnell | Walden | Sub-bituminous | 132 | 4 | 1,839 | 50 |
| Marr | Geo. M. Barnell | Walden | Sub-bituminous | 28 | 1 | 63 | ..... |
| Conrad | | | | | | | |
| Number of Mines operated: | 3 | | | 171.4 | 31 | 28,007 | |
| JEFFERSON COUNTY | | | | | | | |
| Leyden No. 3 | Leyden Lignite Co. | Leyden | Sub-bituminous | 237 | 98 | 121,260 | 750 |
| Unity | Unity Coal Co. | Littleton | Sub-bituminous | 23 | 23 | 1,135 | 40 |
| Littleton Valley | Littleton Valley Coal Co. | Littleton | Sub-bituminous | 237 | 22 | 7,067 | 50 |
| Virginia | Jefferson Coal Co. | Littleton | Sub-bituminous | 124 | 11 | 2,294 | 30 |
| Van Winkle | Van Winkle Coal Co. | Golden | Sub-bituminous | 120 | 11 | 832 | 11 |
| Denney | Denney Mining Co. | Golden | Sub-bituminous | 90 | 4 | 380 | ..... |
| Blue Bird No. 2 | L. H. Benster | Morrison | Sub-bituminous | 60 | 4 | 75 | 3 |
| Number of Mines operated: | 7 | | | 222.7 | 173 | 143,043 | |

LA PLATA COUNTY

| | | | | | |
|--------------------|--------------------------|------------|-------|----|--------|
| Castle..... | Castle Coal & Min. Corp. | Bituminous | 264 | 11 | 7,392 |
| O. K..... | O. K. Coal Co. | Bituminous | 76 | 10 | 3,208 |
| Sunshine..... | Sunshine Coal Co. | Bituminous | 164 | 3 | 2,421 |
| Morning Star..... | Baudino & Co. | Bituminous | 71 | 6 | 1,831 |
| Triangle..... | Triangle Coal Co. | Bituminous | 130 | 2 | 1,636 |
| Black Diamond..... | Black Diamond Coal Co. | Bituminous | 116 | 3 | 1,508 |
| Durango..... | Durango Coal Co. | Bituminous | 235 | 4 | 1,038 |
| Hunt..... | Wm. Hunt | Bituminous | 168 | 2 | 1,017 |
| Superior..... | Superior Fuel Co. | Bituminous | 185 | 3 | 946 |
| Valley View..... | Valley View Coal Co. | Bituminous | 178 | 2 | 977 |
| Peerless..... | Peerless Coal Co. | Bituminous | 91 | 2 | 834 |
| Soda Springs..... | F. O. Palton. | Bituminous | 162 | 2 | 776 |
| Fire Glow..... | George Brown | Bituminous | 200 | 3 | 746 |
| Hay Guich..... | H. J. Kasmussen | Bituminous | 106 | 1 | 650 |
| Shamrock..... | James A. Bierce | Bituminous | 160.5 | 2 | 648 |
| Fort Lewis..... | Zavier Dufur | Bituminous | 150 | 1 | 446 |
| Tipotsch..... | Frank Tipotsch | Bituminous | 104 | 1 | 382 |
| Morning Glory..... | Chas. Yingling | Bituminous | 104 | 1 | 381 |
| Excelstior..... | Chas. Batchelor | Bituminous | 120 | 1 | 331 |
| Ellidge..... | Frank Ellidge | Bituminous | 130 | 2 | 186 |
| Pine River..... | Pine River Coal Co. | Bituminous | 75 | 1 | 136 |
| Hammond..... | M. F. Leonard | Bituminous | 42 | 1 | 103 |
| | of Mines operated: 22 | | 152.7 | 64 | 27,593 |

LARIMER COUNTY

| | | | | | |
|--------------------|----------------------|----------------|-------|----|-------|
| Hackman No. 1..... | Hackman Coal Co. | Sub-bituminous | 221 | 4 | 2,278 |
| Benson..... | Lowe Coal Co. | Sub-bituminous | 188 | 5 | 1,640 |
| Ayshire..... | Ayshire Coal Co. | Sub-bituminous | 99 | 2 | 515 |
| Pioneer..... | Walter Overcamp | Sub-bituminous | 175 | 3 | 354 |
| White Rose..... | White Rose Coal Co. | Sub-bituminous | 90 | 2 | 300 |
| Bachy..... | Bachy Coal Co. | Sub-bituminous | 60 | 2 | 223 |
| | of Mines operated: 6 | | 158.1 | 18 | 5,310 |

TABLE D—1933—Continued.
LAS ANIMAS COUNTY

| Name of Mine | Name of Company | Mine Post Office | Character of Coal | Number of Days Worked | Average No. of Men Employed | Total Number of Tons Produced | Capacity of Mine per Day, Tons |
|-----------------------|----------------------------------|------------------|-------------------|-----------------------|-----------------------------|-------------------------------|--------------------------------|
| Frederick..... | Colorado Fuel & Iron Co..... | Valdez..... | Bituminous..... | 149 | 241 | 190,747 | 2400 |
| Morley..... | Colorado Fuel & Iron Co..... | Morley..... | Bituminous..... | 64.7 | 268 | 88,488 | 1800 |
| Delagua..... | Victor-American Fuel Co..... | Delagua..... | Bituminous..... | 121.5 | 338 | 172,917 | 1800 |
| Boncarbo..... | American Smelting & Ref. Co..... | Cokedale..... | Bituminous..... | 103 | 107 | 84,889 | 1200 |
| Brodhead No. 9..... | Temple Fuel Co..... | Brodhead..... | Bituminous..... | 170.5 | 135 | 67,206 | 500 |
| Kenneth..... | Vickers Coal Co..... | Rugby..... | Bituminous..... | 160 | 87 | 58,007 | 500 |
| Ludlow..... | Huerfano Coal Co..... | Ludlow..... | Bituminous..... | 103.4 | 142 | 50,047 | 600 |
| Creston..... | Jewell Collieries Corp..... | Aguilar..... | Bituminous..... | 174 | 40 | 26,983 | 150 |
| Empire..... | Empire Coal M. Co..... | Aguilar..... | Bituminous..... | 49.8 | 51 | 21,171 | 600 |
| Dix..... | Dick Coal Co..... | Dicks..... | Bituminous..... | 79 | 24 | 15,238 | 300 |
| Rapson..... | Michell..... | Rapson..... | Bituminous..... | 168 | 27 | 12,056 | 200 |
| Sopris No. 1..... | Deldosso Coal Co..... | Sopris..... | Bituminous..... | 115.5 | 22 | 10,145 | 65 |
| Engle..... | Deldosso Coal Co..... | Trinidad..... | Bituminous..... | 114 | 5 | 2,756 | 33 |
| Bear Canon No. 6..... | Bear Canon Coal Co..... | Valloriso..... | Bituminous..... | 50 | 32 | 8,835 | 1000 |
| Thor..... | Thor Fuel Co..... | Trinidad..... | Bituminous..... | 29.8 | 36 | 6,810 | 280 |
| Eureka..... | Phoenix Fuel Co..... | Dicks..... | Bituminous..... | 65 | 43 | 6,613 | 150 |
| Niggerhead..... | Niggerhead Mining Co..... | Aguilar..... | Bituminous..... | 112.5 | 21 | 6,613 | 120 |
| Jeffreyes..... | Jeffreyes Fuel Co..... | Trinidad..... | Bituminous..... | 313 | 9 | 6,024 | 40 |
| Bowen..... | Home Fuel & Supply Co..... | Trinidad..... | Bituminous..... | 146 | 5 | 2,616 | 25 |
| Gem..... | Gem Coal Co..... | Aguilar..... | Bituminous..... | 229 | 6 | 2,314 | 15 |
| Frisco..... | Frisco Coal Co..... | Trinidad..... | Bituminous..... | 170 | 5 | 2,289 | ..... |
| Forbes No. 9..... | W. E. Riggs..... | Trinidad..... | Bituminous..... | 237 | 5 | 2,138 | 10 |
| Daisy..... | Daisy Coal Co..... | Aguilar..... | Bituminous..... | 173 | 3 | 1,524 | 6 |
| Liberty..... | Liberty Coal Co..... | Aguilar..... | Bituminous..... | 200 | 3 | 1,243 | 6 |
| Baldy..... | Baldy Coal Co..... | Trinidad..... | Bituminous..... | 185 | 2 | 1,130 | 8 |
| Santa Fe..... | Santa Fe Coal Co..... | Trinidad..... | Bituminous..... | 79 | 4 | 985 | 10 |
| Crystal..... | Guillermo Bowman..... | Dicks..... | Bituminous..... | 100 | 2 | 826 | 6 |
| Lakeview..... | Nick Riggio..... | Trinidad..... | Bituminous..... | 160 | 2 | 632 | 15 |

LAS ANIMAS COUNTY—Continued

| | | | | | | |
|---------------------|------------------------------|---------------|-----------------|-------|------|---------|
| Pickford..... | M. Boaglio..... | Trinidad..... | Bituminous..... | 150 | 3 | 600 |
| Red Ash..... | W. H. Owens..... | Trinidad..... | Bituminous..... | 120 | 2 | 608 |
| Flag..... | Joe Roggero..... | Trinidad..... | Bituminous..... | 175 | 2 | 458 |
| Bagley..... | Ideal Coal Co..... | Trinidad..... | Bituminous..... | 70 | 2 | 380 |
| Martorano..... | Martorano & Son..... | Trinidad..... | Bituminous..... | 146 | 2 | 342 |
| Buena..... | Jose Y. Buena..... | Trinidad..... | Bituminous..... | 150 | 1 | 365 |
| Joerger..... | Lilyard Coal Co..... | Trinidad..... | Bituminous..... | 120 | 2 | 350 |
| Garcia..... | Benito Garcia..... | Trinidad..... | Bituminous..... | 90 | 2 | 300 |
| Martinez..... | Ralph Martinez..... | Trinidad..... | Bituminous..... | 183 | 2 | 263 |
| Valley..... | Valley Coal Co..... | Sopris..... | Bituminous..... | 100 | 2 | 261 |
| Pritchard..... | Trinidad Supply Coal Co..... | Trinidad..... | Bituminous..... | 53 | 2 | 245 |
| Fishers Peak..... | Fishers Peak Coal Co..... | Trinidad..... | Bituminous..... | 111 | 1 | 242 |
| Tucker..... | A. D. Tucker..... | Trinidad..... | Bituminous..... | 75 | 2 | 261 |
| Star..... | Eugene West..... | Rapson..... | Bituminous..... | 50 | 2 | 226 |
| Wiley..... | O. C. Cook..... | Trinidad..... | Bituminous..... | 82 | 2 | 181 |
| Jackson..... | Standard Coal Co..... | Trinidad..... | Bituminous..... | 75 | 1 | 152 |
| Hill Top..... | Trinidad Coal Co..... | Trinidad..... | Bituminous..... | 200 | 2 | 162 |
| La Belle..... | Wm. Morgan..... | Trinidad..... | Bituminous..... | 15 | 6 | 120 |
| Hernandez..... | J. D. Hernandez..... | Weston..... | Bituminous..... | 90 | 2 | 152 |
| Chay..... | Louis Chay..... | Valdez..... | Bituminous..... | 90 | 1 | 100 |
| Stonewall..... | Arrowhead Coal Co..... | Weston..... | Bituminous..... | 50 | 1 | 99 |
| Salvador..... | Salvador Coal Co..... | Cokedale..... | Bituminous..... | 42 | 2 | 89 |
| Sarcillo Canon..... | Sarcillo Campon Coal Co..... | Trinidad..... | Bituminous..... | 11 | 2 | 42 |
| Sanchez..... | Dementeo Sanchez..... | Boncarbo..... | Bituminous..... | 26 | 1 | 50 |
| | Number..... | | | 114.7 | 1712 | 857,290 |
| | of Mines operated: 52..... | | | | | |

MESA COUNTY

| | | | | | | |
|-------------------|----------------------------------|---------------|----------------------|-------|----|--------|
| Cameo..... | McNeill Coal Corp..... | Cameo..... | Semi-bituminous..... | 95.5 | 45 | 31,592 |
| Mt. Garfield..... | B. Gearhart..... | Palisade..... | Semi-bituminous..... | 274 | 8 | 7,849 |
| Garfield..... | Garfield Coal Co..... | Palisade..... | Semi-bituminous..... | 167 | 8 | 4,772 |
| Palisade..... | Palisade Clean Heat Coal Co..... | Palisade..... | Semi-bituminous..... | 140 | 10 | 4,707 |
| Stove Canon..... | Stove Canon Coal Co..... | Fruita..... | Bituminous..... | 162.8 | 4 | 2,836 |
| P. V..... | Kovak & Stoda..... | Cameo..... | Bituminous..... | 160 | 2 | 2,172 |
| Winger..... | Clarke Coal Co..... | Palisade..... | Bituminous..... | 145 | 4 | 2,135 |
| | | | | | | 600 |
| | | | | | | 75 |
| | | | | | | 100 |
| | | | | | | 40 |
| | | | | | | 18 |
| | | | | | | 30 |

TABLE D--1933--Continued.
MESA COUNTY--Continued

| Name of Mine | Name of Company | Mine Post Office | Character of Coal | Number of Days Worked | Average No. of Men Employed | Total Num-ber of Tons Produced | Capacity of Mine per Day, Tons |
|-----------------|------------------------------|------------------|-------------------|-----------------------|-----------------------------|--------------------------------|--------------------------------|
| Hidden Treasure | Hidden Treasure Coal Co. | Fruita | Bituminous | 106 | 5 | 2,121 | 40 |
| Stokes | W. D. Stokes | Palisade | Semi-bituminous | 117 | 4 | 1,770 | 80 |
| McGinley | William McGinley | Grand Junction | Bituminous | 202 | 2 | 1,699 | 30 |
| Riverside | Riverside Coal Co. | Palisade | Semi-bituminous | 153 | 6 | 1,692 | ..... |
| Farmers No. 1 | Farmers-Mutual Coal Co. | Grand Junction | Bituminous | 177.2 | 4 | 1,587 | 30 |
| Midwest | Midwest Red Arrow Coal Co. | Palisade | Bituminous | 190 | 5 | 1,531 | 30 |
| Williams | Williams Coal Co. | Grand Junction | Bituminous | 160 | 3 | 1,420 | ..... |
| Thomas | Thomas Coal Co. | Grand Junction | Bituminous | 106 | 4 | 1,182 | 15 |
| Blue Flame | Blue Flame Coal Co. | Palisade | Semi-bituminous | 210 | 2 | 1,500 | 20 |
| Hunter | J. B. Hunter | Fruita | Semi-bituminous | 199 | 2 | 887 | 10 |
| Anchor No. 1 | Anchor Coal Co. | Grand Junction | Bituminous | 131 | 3 | 878 | 20 |
| Peacock | Peacock Coal Co. | Grand Junction | Bituminous | 110 | 3 | 801 | ..... |
| Monger | Hiatt Coal Co. | Fruita | Semi-bituminous | 122 | 2 | 922 | ..... |
| Mundell | J. W. Mundell | Grand Junction | Bituminous | 250 | 3 | 780 | ..... |
| Coal Gulch | Coal Gulch Coal Co. | Loma | Semi-bituminous | 104 | 2 | 549 | 10 |
| Marinelli | Marinelli Bros. | Fruita | Bituminous | 200 | 2 | 348 | 6 |
| Nearing | Mesa County Quality Coal Co. | Fruita | Bituminous | 107 | 2 | 294 | ..... |
| Grasso | Nunzio Grasso | Grand Junction | Bituminous | 64 | 2 | 294 | ..... |
| Corcoran | W. M. Cregar | Grand Junction | Bituminous | 117 | 3 | 279 | ..... |
| Ullice | Ullice Coal Ass'n | Loma | Bituminous | 30 | 2 | 153 | 10 |
| Mt. Lincoln | Mt. Lincoln Coal Co. | Palisade | Semi-bituminous | 16 | 3 | 90 | ..... |
| Big Tree | Big Tree Coal Co. | Grand Junction | Bituminous | 25 | 2 | 85 | ..... |
| Number | of Mines operated: 29 | | | 132.7 | 147 | 76,925 | |

MOFFAT COUNTY

| | | | | | | |
|------------------|-----------------------------------|---------------|-----------------|-----|----|-------|
| Knez..... | Knez Coal Co..... | Craig..... | Bituminous..... | 195 | 2 | 1,695 |
| Collom..... | Partison Coal & Oil Co..... | Axial..... | Bituminous..... | 210 | 1 | 697 |
| Shaver..... | Phelan & Shaver..... | Axial..... | Bituminous..... | 80 | 2 | 635 |
| Blair..... | Blair Coal Co..... | Craig..... | Bituminous..... | 100 | 2 | 475 |
| Hart..... | Thomas Green..... | Craig..... | Bituminous..... | 107 | 1 | 435 |
| Community..... | Frank Close..... | Craig..... | Bituminous..... | 148 | 1 | 418 |
| Wisconsin..... | Wisconsin Coal Co..... | Lay..... | Bituminous..... | 100 | 1 | 216 |
| Little Bear..... | Little Bear Coal Co..... | Craig..... | Bituminous..... | 90 | 1 | 114 |
| Sadvar..... | Mathew Sadvar..... | Craig..... | Bituminous..... | 150 | 1 | 100 |
| Whitlock..... | E. E. Whitlock..... | Hamilton..... | Bituminous..... | 53 | 1 | 93 |
| Shelton..... | H. D. Shelton..... | Maybell..... | Bituminous..... | 30 | 1 | 45 |
| | Number of Mines operated: 11..... | | | 117 | 14 | 4,923 |

MONTEZUMA COUNTY

| | | | | | | |
|------------------|-----------------------------------|--------------|----------------------|-------|----|-------|
| Mancos Hill..... | Mancos Hill Coal Co..... | Mancos..... | Semi-bituminous..... | 162 | 4 | 1,309 |
| Willden..... | Willden Coal Co..... | Mancos..... | Bituminous..... | 170 | 2 | 922 |
| Dolores..... | Dominick Gorbella..... | Dolores..... | Semi-bituminous..... | 101 | 2 | 816 |
| Morris..... | James Morris..... | Dolores..... | Semi-bituminous..... | 360 | 2 | 775 |
| Spencer..... | Geo. S. Spencer..... | Mancos..... | Semi-bituminous..... | 239 | 2 | 762 |
| Pinos Altos..... | H. A. Ainsworth..... | Mancos..... | Semi-bituminous..... | 122 | 2 | 440 |
| Mancos..... | Mancos Coal & Lumber Co..... | Mancos..... | Semi-bituminous..... | 84 | 2 | 235 |
| Mesa Verde..... | Wood & Black..... | Cortez..... | Semi-bituminous..... | 25 | 3 | 155 |
| Cortez..... | A. F. Hopper..... | Cortez..... | Semi-bituminous..... | 45 | 2 | 150 |
| Bud Ince..... | Bud Ince..... | Dolores..... | Semi-bituminous..... | 60 | 1 | 60 |
| Sunnyside..... | George A. Greenwood..... | Lebanon..... | Semi-bituminous..... | 30 | 1 | 42 |
| | Number of Mines operated: 11..... | | | 132.8 | 23 | 5,666 |

MONTROSE COUNTY

| | | | | | | |
|----------------------|----------------------------------|---------------|-----------------|-------|---|-------|
| Liberty Bell..... | King & Mitchell..... | Nucla..... | Bituminous..... | 250 | 2 | 738 |
| Rice..... | Arthur Rice..... | Norwood..... | Bituminous..... | 126 | 1 | 212 |
| Independence..... | W. J. Oberding..... | Nucla..... | Bituminous..... | 120 | 1 | 208 |
| Pleasant Valley..... | W. T. Holder..... | Nucla..... | Bituminous..... | 78 | 1 | 156 |
| Ute (Babej)..... | Michael Babej..... | Montrose..... | Bituminous..... | 80 | 1 | 133 |
| | Number of Mines operated: 5..... | | | 150.7 | 6 | 1,447 |

TABLE D—1933—Continued.

OURAY COUNTY

| Name of Mine | Name of Company | Mine Post Office | Character of Coal | Number of Days Worked | Average No. of Men Employed | Total Number of Tons Produced | Capacity of Mine per Day, Tons |
|-----------------------------|-------------------------------------------|-------------------------------|--------------------------------------------|-----------------------|-----------------------------|-------------------------------|--------------------------------|
| Kennedy..... Colona..... | H. A. Kennedy..... Colona Coal Co..... | Ridgway..... Montrose..... | Sub-bituminous..... Sub-bituminous..... | 90 60 | 2 1 | 353 54 | ..... ..... |
| Number | of Mines operated: 2 | | | 80 | 3 | 407 | |

PITKIN COUNTY

| | | | | | | | |
|--------------|----------------------|--------------|-----------------|-----|---|-------|-------|
| Placita..... | Hughes & McCann..... | Placita..... | Bituminous..... | 138 | 3 | 1,674 | ..... |
| Number | of Mines operated: 1 | | | 138 | 3 | 1,674 | |

RIO BLANCO COUNTY

| | | | | | | | |
|-------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|--------------------------------|-----------------------|---------------------------------------|---------------------------------|
| New Pollard..... Pollard..... McKee..... Reinart..... Reinart..... Nine Mile Hill..... | C. F. Pollard..... Electric Coal Co..... Electric Coal Co..... R. C. Reinart..... Thos. D. Foreman..... | Meeker..... Meeker..... Meeker..... Meeker..... Meeker..... | Bituminous..... Bituminous..... Bituminous..... Bituminous..... Bituminous..... | 245 237 76 224 150 | 2 2 1 2 1 | 1,981 1,791 149 1,007 799 | 50 10 4 5 |
| Johnny Boy..... Lion Canon..... Pleasance..... Fairfield..... Ford..... | G. G. Hart & Son..... G. G. Hart & Son..... Lamm & Adair..... E. F. Fairfield..... Claude Lamm..... | Meeker..... Meeker..... Rio Blanco..... Meeker..... Rio Blanco..... | Bituminous..... Bituminous..... Bituminous..... Bituminous..... Bituminous..... | 109 68 90 150 40 | 1 2 2 1 2 | 438 350 221 141 76 | 10 10 5 |
| Douglas Creek..... | Jones & Trachta..... | Rangely..... | Bituminous..... | 20 | 2 | 30 | ..... |
| Number | of Mines operated: 11 | | | 120.8 | 18 | 6,983 | |

TABLE D—1933—Continued.
WELD COUNTY

| Name of Mine | Name of Company | Mine Post Office | Character of Coal | Number of Days Worked | Average No. of Men Employed | Total Num-ber of Tons Produced | Capacity of Mine per Day, Tons |
|-----------------------------------|----------------------------------|------------------|---------------------|-----------------------|-----------------------------|--------------------------------|--------------------------------|
| Columbine..... | Rocky Mountain Fuel Co..... | Serene..... | Sub-bituminous..... | 228.8 | 230 | 273,291 | 1600 |
| Grant..... | Rocky Mountain Fuel Co..... | Frederick..... | Sub-bituminous..... | 248 | 107 | 127,266 | 1000 |
| Morrison..... | Clayton Coal Co..... | Erie..... | Sub-bituminous..... | 127 | 117 | 113,248 | 2000 |
| Clayton..... | Clayton Coal Co..... | Erie..... | Sub-bituminous..... | 90.5 | 145 | 93,089 | 2000 |
| Boulder Valley..... | Boulder Valley Coal Co..... | Erie..... | Sub-bituminous..... | 110 | 101 | 165,609 | 2000 |
| Puritan..... | National Fuel Co..... | Frederick..... | Sub-bituminous..... | 139.6 | 166 | 160,809 | 1400 |
| Imperial..... | Imperial Coal Col..... | Erie..... | Sub-bituminous..... | 162 | 119 | 118,872 | 1500 |
| Baum..... | Consolidated Coal & Coke Co..... | Dacono..... | Sub-bituminous..... | 152 | 112 | 99,451 | 500 |
| Russell..... | W. E. Russell Coal Co..... | Frederick..... | Sub-bituminous..... | 163 | 74 | 96,033 | 600 |
| Sterling..... | McNeil Coal Corp..... | Dacono..... | Sub-bituminous..... | 153.5 | 89 | 83,361 | 1000 |
| Shamrock..... | Shamrock Coal Co..... | Frederick..... | Sub-bituminous..... | 114 | 87 | 73,754 | 800 |
| Liley..... | Liley Coal & Land Co..... | Frederick..... | Sub-bituminous..... | 219 | 43 | 48,327 | 350 |
| Monroe..... | Monroe Coal Co..... | Louisville..... | Sub-bituminous..... | 259 | 15 | 10,211 | 100 |
| Buddy..... | Buddy Coal Co..... | LaSalle..... | Sub-bituminous..... | 247 | 8 | 3,767 | ..... |
| White Ash..... | White Ash Coal Co..... | LaSalle..... | Sub-bituminous..... | 229 | 4 | 1,879 | ..... |
| Hill..... | L. W. Pickett..... | Briggsdale..... | Sub-bituminous..... | 113 | 2 | 825 | 30 |
| Casselman..... | Walter Casselman..... | LaSalle..... | Sub-bituminous..... | 30 | 4 | 486 | ..... |
| Number of Mines operated: 17..... | | | | 161.6 | 1423 | 1,470,278 | ..... |

STATE OF COLORADO

| | |
|------------------------------------------------|-----------|
| Number of Counties Producing..... | 26 |
| Number of Mines Reporting..... | 371 |
| Number of Man-Days..... | 139.5 |
| Number of Men Employed in and About Mines..... | 8,179 |
| Total Tons Produced..... | 5,284,872 |

TABLE D—1934.

SHOWING BY COUNTIES, MINES OPERATED, NAME OF OPERATOR AND ADDRESS OF MINE, CHARACTER OF COAL, NUMBER OF DAYS WORKED, AVERAGE NUMBER OF MEN EMPLOYED, TOTAL NUMBER OF TONS OF COAL PRODUCED IN 1934 AND CAPACITY OF MINE PER DAY IN TONS.

ADAMS COUNTY

| Name of Mine | Name of Company | Mine Post Office | Character of Coal | Number of Days Worked | Average No. of Men Employed | Total Number of Tons Produced | Capacity of Mine per Day, Tons |
|--------------|----------------------|------------------|-------------------|-----------------------|-----------------------------|-------------------------------|--------------------------------|
| Rock Creek | Rock Creek Coal Co. | Byers | Sub-bituminous | 200 | 1 | 421 | ..... |
| Number | of Mines operated: 1 | ..... | ..... | 200 | 1 | 421 | ..... |

ARCHULETA COUNTY

| | | | | | | | |
|----------|----------------------|-----------------|----------------|-------|---|-----|-------|
| Gallego | Gerlo Gallegos | Pagosa Springs | Sub-bituminous | 104 | 2 | 250 | 2 |
| Nossaman | W. J. Nossaman | Pagosa Springs | Sub-bituminous | 100 | 2 | 250 | ..... |
| Cox | T. L. Cox | Pagosa Springs | Sub-bituminous | 138 | 1 | 190 | ..... |
| Bellino | Antonita & Bellino | Pagosa Junction | Sub-bituminous | 130 | 2 | 190 | ..... |
| McBroom | Chan. McBroom | Dyke | Sub-bituminous | 20 | 1 | 37 | ..... |
| Number | of Mines operated: 5 | ..... | ..... | 102.5 | 8 | 917 | ..... |

BOULDER COUNTY

| | | | | | | | |
|---------------------|-------------------------------|------------|----------------|-------|-----|--------|-----|
| Industrial | Rocky Mountain Fuel Co. | Superior | Sub-bituminous | 119.9 | 139 | 68,576 | 800 |
| Vulcan | Rocky Mountain Fuel Co. | Lafayette | Sub-bituminous | 233.3 | 57 | 35,013 | 250 |
| Standard | James Harris & Associates | Lafayette | Sub-bituminous | 284 | 16 | 1,178 | 300 |
| Monarch No. 2 | National Fuel Co. | Broomfield | Sub-bituminous | 154.5 | 134 | 95,119 | 700 |
| Hi-Way | Louisville-Lafayette Coal Co. | Broomfield | Sub-bituminous | 166 | 115 | 79,851 | 700 |
| Crown | David Allan | Gorham | Sub-bituminous | 270 | 93 | 58,684 | 500 |
| Black Diamond No. 2 | Black Diamond Fuel Co. | Boulder | Sub-bituminous | 295 | 58 | 48,378 | 600 |

TABLE D—1934—Continued.
BOULDER COUNTY—Continued

| Name of Mine | Name of Company | Mine Post Office | Character of Coal | Number of Days Worked | Average No. of Men Employed | Total Number of Tons Produced | Capacity of Mine per Day, Tons |
|-----------------------------|---------------------------------|------------------|---------------------|-----------------------|-----------------------------|-------------------------------|--------------------------------|
| Pluto No. 2..... | Pluto Coal M. Co..... | Superior..... | Sub-bituminous..... | 260 | 15 | 13,006 | 100 |
| Gorham No. 2..... | Domestic Coal Co..... | Boulder..... | Sub-bituminous..... | 154 | 14 | 9,367 | 135 |
| Eldorado..... | Eldorado..... | Gorham..... | Sub-bituminous..... | 247 | 10 | 7,340 | 50 |
| High View..... | High View Coal Co..... | Gorham..... | Sub-bituminous..... | 227 | 8 | 6,731 | 50 |
| Frreside..... | Ko-Z Coal Co..... | Louisville..... | Sub-bituminous..... | 236 | 11 | 5,836 | ..... |
| Lewis No. 2 (Peerless)..... | Hi-Carbon Coal Co..... | Gorham..... | Sub-bituminous..... | 138 | 13 | 4,852 | ..... |
| Arrow..... | Arrow Coal Co..... | Gorham..... | Sub-bituminous..... | 221 | 9 | 4,144 | 20 |
| New Ross..... | Ross Coal Co..... | Louisville..... | Sub-bituminous..... | 269 | 8 | 3,524 | 20 |
| Eagle..... | Eagle Coal Co..... | Gorham..... | Sub-bituminous..... | 71 | 4 | 3,038 | 50 |
| Paramount..... | Paramount Coal Co..... | Lafayette..... | Sub-bituminous..... | 205 | 4 | 1,839 | 10 |
| Red Ash No. 2..... | Pittsburgh Coal Co..... | Gorham..... | Sub-bituminous..... | 162 | 4 | 1,350 | 10 |
| Premier..... | Premier Coal Co..... | Boulder..... | Sub-bituminous..... | 100 | 4 | 1,250 | 15 |
| Cactus..... | Cactus Coal Co..... | Boulder..... | Sub-bituminous..... | 220 | 2 | 1,140 | 10 |
| Banner..... | Banner Coal Co..... | Gorham..... | Sub-bituminous..... | 44 | 14 | 904 | ..... |
| Pine Cliff..... | Tri-State Coal Association..... | Boulder..... | Sub-bituminous..... | 212 | 4 | 773 | 12 |
| Northern..... | Northern Coal Co..... | Gorham..... | Sub-bituminous..... | 96 | 3 | 721 | ..... |
| Number | of Mines operated: 23. | | | 139.3 | 739 | 462,614 | |

DELTA COUNTY

| | | | | | | | |
|-------------------|-----------------------------|----------------|---------------------|-------|----|--------|-----|
| King..... | Juanita Coal & Coke Co..... | Bowie..... | Bituminous..... | 76 | 35 | 21,705 | 106 |
| Green Valley..... | Green Valley Coal Co..... | Cedaredge..... | Sub-bituminous..... | 263 | 5 | 3,764 | 60 |
| Red Canon..... | Red Canon Coal Co..... | Cedaredge..... | Sub-bituminous..... | 234.5 | 4 | 2,966 | 30 |
| Winton..... | Winton Coal Co..... | Austin..... | Sub-bituminous..... | 154 | 3 | 2,343 | 75 |
| Paonia..... | Paonia-Farmers Coal Co..... | Paonia..... | Sub-bituminous..... | 191 | 2 | 2,179 | 15 |

DELTA COUNTY—Continued

| | | | | | | |
|----------------------------|------------------------|----------------|---------------------|-----|----|--------|
| Black Diamond..... | Black Diamond Coal Co. | Cedaredge..... | Sub-bituminous..... | 100 | 2 | 1,100 |
| Independent..... | Independent Coal Co. | Cedaredge..... | Sub-bituminous..... | 137 | 3 | 966 |
| Red Mountain..... | States Hall Coal Co. | Cedaredge..... | Sub-bituminous..... | 151 | 3 | 903 |
| States..... | States Hall Coal Co. | Cedaredge..... | Sub-bituminous..... | 99 | 2 | 900 |
| Rollins..... | Rollins Fuel Co. | Delta..... | Sub-bituminous..... | 156 | 1 | 402 |
| Fitzsimmons..... | Hice Coal Co. | Paonia..... | Sub-bituminous..... | 96 | 2 | 395 |
| Bennett..... | Bennett Coal Co. | Hotchkiss..... | Sub-bituminous..... | 98 | 1 | 390 |
| Western Star..... | Western Star Coal Co. | Cedaredge..... | Sub-bituminous..... | 70 | 1 | 276 |
| Converse..... | Oren Kutz..... | Paonia..... | Sub-bituminous..... | 126 | 1 | 263 |
| Gelwick..... | Gelwick Coal Co. | Hotchkiss..... | Sub-bituminous..... | 25 | 1 | 81 |
| Vowell (Leroux Creek)..... | Tom Vowell..... | Lazear..... | Sub-bituminous..... | 30 | 1 | 40 |
| Number | of Mines operated: 16. | | | 116 | 67 | 38,673 |

ELBERT COUNTY

| | | | | | | |
|--------------------|-----------------------------|---------------|---------------------|-------|----|-------|
| Wright..... | Wright Barker..... | Matheson..... | Sub-bituminous..... | 212 | 2 | 2,196 |
| Jordan..... | Guy Jordan..... | Agate..... | Sub-bituminous..... | 120 | 3 | 1,507 |
| Mascot..... | Mascot Coal, Oil & Clay Co. | Matheson..... | Sub-bituminous..... | 107 | 2 | 508 |
| Fondis..... | Fondis Coal Co. | Fondis..... | Sub-bituminous..... | 190 | 1 | 270 |
| Beaver Valley..... | J. M. Dalrymple & Son. | Agate..... | Sub-bituminous..... | 19 | 4 | 200 |
| White Ash..... | D. F. Shea..... | Matheson..... | Sub-bituminous..... | 176 | 3 | 1,316 |
| Number | of Mines operated: 6. | | | 119.5 | 15 | 5,997 |

EL PASO COUNTY

| | | | | | | |
|----------------------|----------------------|-----------------------|---------------------|-------|-----|---------|
| Pikeview..... | Pikes Peak Fuel Co. | Pikeview..... | Sub-bituminous..... | 232 | 162 | 208,677 |
| City Coal Mines..... | Colorado Springs Co. | Colorado Springs..... | Sub-bituminous..... | 281 | 63 | 34,765 |
| Altitude..... | Altitude Fuel Co. | Colorado Springs..... | Sub-bituminous..... | 312 | 19 | 12,073 |
| Jimmy Camp..... | Thomas Mining Co. | Colorado Springs..... | Sub-bituminous..... | 233.5 | 22 | 11,923 |
| Cortley No. 1..... | Cortley Coal Co. | Colorado Springs..... | Sub-bituminous..... | 108 | 21 | 8,089 |
| Cortley No. 3..... | Cortley Coal Co. | Colorado Springs..... | Sub-bituminous..... | 275 | 11 | 6,297 |
| Busy Bee..... | Busy Bee Coal Co. | Colorado Springs..... | Sub-bituminous..... | 306 | 6 | 4,331 |

TABLE D—1934—Continued.
EL PASO COUNTY—Continued

| Name of Mine | Name of Company | Mine Post Office | Character of Coal | Number of Days Worked | Average No. of Men Employed | Total Number of Tons Produced | Capacity of Mine per Day, Tons |
|---------------------------|-----------------------------------|-----------------------|----------------------|-----------------------|-----------------------------|-------------------------------|--------------------------------|
| New Keystone..... | John Streenan..... | Colorado Springs..... | Sub-bituminous..... | 188 | 9 | 3,701 | 20 |
| Climax..... | Danville Coal Co..... | Colorado Springs..... | Sub-bituminous..... | 236 | 3 | 2,289 | 9 |
| Drennan..... | Drennan Coal Co..... | Colorado Springs..... | Sub-bituminous..... | 163 | 2 | 673 | 10 |
| Rush..... | Guy McPherson..... | Rush..... | Sub-bituminous..... | 120 | 3 | 438 | 10 |
| Number | of Mines operated: 11..... | | | 222.5 | 321 | 293,262 | |
| FREMONT COUNTY | | | | | | | |
| Chandler..... | Victor-American Fuel Co..... | Chandler..... | Bituminous..... | 168 | 290 | 118,312 | 800 |
| Rockvale..... | Colorado Fuel & Iron Co..... | Canon City..... | Bituminous..... | 256.4 | 59 | 43,708 | 400 |
| Canon Black Diamond..... | Canon Black Diamond Coal Co..... | Florence..... | Bituminous..... | 297 | 27 | 23,630 | 150 |
| Cedar Canon..... | Gulliano & Carpine..... | Florence..... | Bituminous..... | 182 | 28 | 22,433 | 210 |
| Canon Monarch..... | Canon Monarch Coal Co..... | Florence..... | Bituminous..... | 195 | 27 | 20,079 | ..... |
| Double Dick..... | Double Dick Coal Co..... | Florence..... | Bituminous..... | 232 | 26 | 19,949 | ..... |
| Caldriola..... | Caldriola Coal Co..... | Florence..... | Semi-bituminous..... | 213 | 18 | 17,237 | 150 |
| American Independent..... | American Independent Coal Co..... | Florence..... | Semi-bituminous..... | 186 | 25 | 11,609 | 96 |
| Canon..... | Canon-Reliance Coal Co..... | Florence..... | Bituminous..... | 25 | 107 | 9,892 | 350 |
| Rocchio..... | Rocchio Coal Co..... | Coal Creek..... | Semi-bituminous..... | 219 | 13 | 8,346 | 50 |
| Nushaft..... | E. B. Cribbs..... | Coal Creek..... | Bituminous..... | 99 | 19 | 7,958 | 100 |
| Rockvale No. 2..... | E. B. Cribbs..... | Coal Creek..... | Bituminous..... | 48 | 43 | 5,205 | ..... |
| Royal Gorge..... | Royal Gorge Coal Co..... | Canon City..... | Bituminous..... | 197 | 18 | 7,363 | 90 |
| Griffiths..... | Griffiths Coal M. Co..... | Canon City..... | Bituminous..... | 179 | 11 | 5,868 | ..... |
| Bald..... | J. Bald Coal Co..... | Florence..... | Bituminous..... | 150 | 13 | 4,535 | 60 |
| Fawn Hollow..... | Fawn Hollow Coal Co..... | Canon City..... | Bituminous..... | 171 | 12 | 4,090 | 26 |
| Bluff Springs..... | Bluff Springs Leasing Co..... | Florence..... | Bituminous..... | 163 | 28 | 7,807 | ..... |

FREMONT COUNTY—Continued

| | | | | | | |
|---------------------------|------------------------------|-----------------|-------|-----|---------|-------|
| Red Arrow..... | Canon Red Arrow Coal Co..... | Rockvale..... | 90 | 16 | 2,609 | 30 |
| Newlan Creek..... | Perino Coal Co..... | Florence..... | 210 | 4 | 2,098 | 10 |
| New Fremont..... | Fremont Canon Coal Co..... | Canon City..... | 91 | 18 | 2,619 | ..... |
| Brookside..... | Brookside Coal M. Co..... | Florence..... | 146 | 11 | 3,993 | 30 |
| Brook Canon..... | Brook Canon Coal Co..... | Canon City..... | 214 | 6 | 2,165 | 30 |
| Peacock..... | Ramson Coal Co..... | Florence..... | 191 | 4 | 1,906 | 10 |
| Canon Liberty..... | Canon Liberty Coal Co..... | Canon City..... | 130 | 5 | 1,801 | ..... |
| Petry (Willie No. 1)..... | Sam Petry..... | Florence..... | 144 | 6 | 1,850 | ..... |
| South Magnet..... | Canon Quality Coal Co..... | Florence..... | 41 | 22 | 1,760 | ..... |
| Florence (Kattling)..... | Florence Coal Co..... | Florence..... | 234 | 3 | 1,309 | 6 |
| Canon Ideal..... | Canon Ideal Coal Co..... | Canon City..... | 179 | 2 | 919 | ..... |
| Willie No. 2..... | James Brothers..... | Florence..... | 220 | 2 | 880 | 4 |
| Willie No. 3..... | Paul Carstia..... | Florence..... | 100 | 1 | 200 | 2 |
| Boulder Canon..... | Boulder Canon Coal Co..... | Florence..... | 100 | 4 | 600 | 15 |
| Canon Imperial..... | Canon Imperial Coal Co..... | Florence..... | 50 | 6 | 499 | 9 |
| Little Johnny..... | Little Johnny Coal Co..... | Florence..... | 20 | 6 | 308 | ..... |
| Rockdale..... | Rockdale Canon Coal Co..... | Canon City..... | 57 | 4 | 248 | 5 |
| Brewster..... | Brewster Mining Co..... | Florence..... | 26 | 1 | 18 | ..... |
| | of Mines operated: 35..... | | 149.1 | 885 | 363,803 | ..... |
| | Number | | | | | |

GARFIELD COUNTY

| | | | | | | |
|-----------------------|-----------------------------|-----------------------|-------|----|--------|-------|
| New Castle..... | W. G. McDonald..... | New Castle..... | 248 | 11 | 13,090 | 200 |
| Carbonera..... | Gilson Asphaltum Co..... | Bituminous..... | 161.9 | 10 | 6,670 | 50 |
| Harvey Gap..... | Harvey Gap Coal Co..... | Bituminous..... | 262 | 4 | 1,877 | 7 |
| South Canon..... | South Canon Mine L. Co..... | Glenwood Springs..... | 119 | 10 | 1,436 | 70 |
| Ziesenis..... | Henry Ziesenis..... | Bituminous..... | 142.5 | 2 | 958 | 10 |
| Liewellyn (Silt)..... | Liewellyn Coal Co..... | Bituminous..... | 148 | 3 | 929 | 20 |
| Estes..... | Estes Bros..... | Rifle..... | 250 | 3 | 733 | ..... |
| North Midland..... | J. L. McNatt..... | Bituminous..... | 78 | 3 | 674 | 8 |
| Rauman..... | Rauman Coal Co..... | Glenwood Springs..... | 173 | 2 | 588 | 10 |
| Ohkraut..... | Frank De Boy..... | Rifle..... | 152 | 1 | 351 | ..... |
| Berglund..... | Ora W. Estes..... | Glenwood Springs..... | 66 | 2 | 334 | ..... |
| Paradise..... | Angele Paradise..... | Bituminous..... | 146 | 1 | 242 | ..... |
| | of Mines operated: 12..... | | 173.2 | 51 | 27,882 | ..... |
| | Number | | | | | |

TABLE D—1934—Continued.

GUNNISON COUNTY

| Name of Mine | Name of Company | Mine Post Office | Character of Coal | Number of Days Worked | Average No. of Men Employed | Total Num-ber of Tons Produced | Capacity of Mine per Day, Tons |
|---------------|---------------------------|------------------|-------------------|-----------------------|-----------------------------|--------------------------------|--------------------------------|
| Somerset | Calumet Fuel Co. | Somerset | Bituminous | 181 | 110 | 160,052 | 1,200 |
| Crested Butte | Colorado Fuel & Iron Co. | Crested Butte | Bituminous | 133.9 | 219 | 154,578 | ..... |
| Oliver | Oliver Coal Co. | Somerset | Semi-anthracite | 190 | 55 | 50,837 | 500 |
| Bulkley No. 2 | Crested Butte Coal Co. | Gunnison | Bituminous | 221 | 34 | 29,998 | 200 |
| Alpine | Rocky Mountain Fuel Co. | Baldwin | Semi-bituminous | 104 | 61 | 29,931 | 350 |
| Bear | Bear Coal & Coke Co. | Somerset | Bituminous | 149 | 11 | 7,110 | ..... |
| Richardson | Mt. Carbon Anthracite Co. | Gunnison | Anthracite | 178 | 16 | 3,369 | 20 |
| Horace | Horace Anthracite Co. | Crested Butte | Anthracite | 177 | 15 | 3,947 | 25 |
| Hawks Nest | Clement Audin | Somerset | Bituminous | 157 | 3 | 3,170 | 18 |
| Lone Pine | Lone Pine Coal Co. | Somerset | Bituminous | 161 | 3 | 1,209 | 20 |
| Ohio Creek | Ohio Creek Coal Co. | Gunnison | Bituminous | 122 | 3 | 1,209 | 25 |
| Baldwin-Star | Baldwin Fuel Co. | Baldwin | Semi-bituminous | 85 | 2 | 850 | 10 |
| Carbon Creek | Wm. Waugh | Gunnison | Bituminous | 217 | 2 | 786 | 4 |
| Castle Rock | Castle Rock Coal Co. | Gunnison | Bituminous | 168 | 2 | 559 | 12 |
| Hinkle | Wade Whitt | Gunnison | Bituminous | 114 | 1 | 366 | 8 |
| | Number | | | 150 | 531 | 447,971 | |
| | of Mines operated: 15 | | | | | | |

HUERFANO COUNTY

| | | | | | | | |
|----------------|--------------------------|-----------|------------|-------|-----|---------|-------|
| Robinson No. 4 | Colorado Fuel & Iron Co. | Farr | Bituminous | 196.9 | 210 | 185,312 | 1,000 |
| Kebley No. 2 | Colorado Fuel & Iron Co. | Toga | Bituminous | 192.8 | 140 | 98,482 | 850 |
| Alamo No. 1 | Alamo Coal Co. | Alamo | Bituminous | 207 | 96 | 62,958 | 1,000 |
| Alamo No. 2 | Barbour Coal Co. | Alamo | Bituminous | 93 | 109 | 38,483 | 1,000 |
| Calumet No. 2 | Calumet Fuel Co. | Delcarbon | Bituminous | 129.1 | 86 | 50,397 | 600 |

HUERFANO COUNTY—Continued

| | | | | | | | |
|------------------------|----------------------------|-----------------|-----------------|-------|-------|---------|-------|
| Gordon..... | Gordon Coal Co..... | Gordon..... | Bituminous..... | 222 | 68 | 43,266 | 400 |
| Ravenwood..... | Caliente Coal Co..... | Ravenwood..... | Bituminous..... | 159 | 81 | 33,848 | 215 |
| Maitland..... | Caliente Coal Co..... | Maitland..... | Bituminous..... | 47 | 43 | 3,549 | 210 |
| Pryor..... | Pryor Coal M. Co..... | Pryor..... | Bituminous..... | 98.6 | 71 | 26,221 | 500 |
| Ojo Canon..... | Peachey Coal Co..... | La Veta..... | Bituminous..... | 221 | 37 | 14,431 | 100 |
| Toltec..... | Aztec Coal M. Co..... | Toltec..... | Bituminous..... | 99 | 35 | 11,179 | 150 |
| Lead No. 2..... | Red Ash Coal Co..... | Walsenburg..... | Bituminous..... | 266 | 14 | 8,570 | 45 |
| Vista..... | Minnequa Fuel Co..... | Walsenburg..... | Bituminous..... | 39 | 29 | 8,090 | 300 |
| Torrild..... | Torrild Coal M. Co..... | Asuilar..... | Bituminous..... | 167.5 | 13 | 7,144 | 75 |
| Major..... | Major Coal Co..... | Walsenburg..... | Bituminous..... | 183 | 9 | 5,935 | 60 |
| Black Hawk..... | Black Hawk Coal M. Co..... | Walsenburg..... | Bituminous..... | 118 | 9 | 2,418 | 20 |
| Spanish Peak..... | W. A. Ream Coal Co..... | Tioga..... | Bituminous..... | 22 | 46 | 2,751 | 150 |
| Bunker Hill No. 1..... | Steve Mattivi & Son..... | Rugby..... | Bituminous..... | 98 | 12 | 1,639 | 50 |
| Bunker Hill No. 2..... | Sowers Coal Co..... | Walsenburg..... | Bituminous..... | 116 | 2 | 880 | ..... |
| Round Oak..... | Giordano Coal Co..... | Walsenburg..... | Bituminous..... | 205 | 5 | 1,306 | 10 |
| Spring Canon..... | Spring Canon Coal Co..... | Walsenburg..... | Bituminous..... | 208 | 3 | 1,139 | 3 |
| Caddell No. 1..... | P. & T. Coal Co..... | Walsenburg..... | Bituminous..... | 62 | 3 | 505 | ..... |
| Caddell No. 3..... | Caddell Coal Co..... | Walsenburg..... | Bituminous..... | 161 | 5 | 978 | ..... |
| George No. 2..... | Sam George & Sons..... | La Veta..... | Bituminous..... | 192 | 4 | 837 | ..... |
| Shamrock..... | Shamrock Coal Co..... | Tioga..... | Bituminous..... | 200 | 2 | 650 | 10 |
| Murrell..... | James Murrell..... | La Veta..... | Bituminous..... | 105 | 2 | 551 | 3 |
| Strawberry..... | Strawberry Coal Co..... | Toltec..... | Bituminous..... | 19 | 5 | 105 | 5 |
| Number..... | of Mines operated: 27..... | ..... | ..... | 158.2 | 1,130 | 607,624 | ..... |

JACKSON COUNTY

| | | | | | | | |
|------------------------|---------------------------|---------------|---------------------|-------|----|--------|-------|
| Rabbitear (Moore)..... | North Park Fuel Co..... | Coalmont..... | Sub-bituminous..... | 153 | 33 | 22,748 | 220 |
| Marr..... | Geo. M. Barnell..... | Walden..... | Sub-bituminous..... | 193 | 4 | 1,910 | 30 |
| Number..... | of Mines operated: 2..... | ..... | ..... | 159.1 | 37 | 24,658 | ..... |

TABLE D—1934—Continued.
JEFFERSON COUNTY

| Name of Mine | Name of Company | Mine Post Office | Character of Coal | Number of Days Worked | Average No. of Men Employed | Total Number of Tons Produced | Capacity of Mine per Day, Tons |
|--------------|---------------------------|-------------------|-------------------|-----------------------|-----------------------------|-------------------------------|--------------------------------|
| Leyden No. 3 | Leyden Lignite Co. | Leyden via Golden | Sub-bituminous | 190.3 | 113 | 117,783 | 750 |
| Virginia | Jefferson Coal Co. | Littleton | Sub-bituminous | 299 | 9 | 8,173 | 40 |
| Unity | Wild Cat Leasing Co. | Littleton | Sub-bituminous | 255 | 7 | 4,467 | 50 |
| Christensen | Littleton Valley Coal Co. | Littleton | Sub-bituminous | 52 | 30 | 2,871 | ..... |
| Van Winkle | Van Winkle Coal Co. | Golden | Sub-bituminous | 238 | 4 | 2,372 | 25 |
| Caprock | Caprock Fuel Co. | Ravenwood | Sub-bituminous | 22 | 17 | 818 | 30 |
| Denney | Denney Coal Co. | Golden | Sub-bituminous | 73 | 2 | 213 | ..... |
| Blue Bird | L. A. Benster | Morrison | Sub-bituminous | 31 | 2 | 111 | ..... |
| Number | of Mines operated: 8 | ..... | ..... | 157.9 | 184 | 136,808 | ..... |

LA PLATA COUNTY

| | | | | | | | |
|---------------|------------------------|----------|-----------------|-------|---|-------|-------|
| Castle | Castle Coal M. Corp. | Durango | Semi-bituminous | 259 | 7 | 5,721 | 150 |
| O. K. | O. K. Coal Co. | Durango | Bituminous | 69 | 8 | 2,467 | 50 |
| Sunshine | Sunshine Coal Co. | Durango | Bituminous | 187 | 2 | 2,033 | ..... |
| Morning Star | Baudino & Co. | Durango | Bituminous | 33 | 3 | 1,540 | 17 |
| Durango | Durango Coal Co. | Durango | Bituminous | 235 | 4 | 1,421 | 50 |
| Fire Glow | George Brown | Durango | Bituminous | 206.5 | 2 | 1,412 | 15 |
| Hay Gulch | H. J. Rasmussen | Hesperus | Bituminous | 190 | 1 | 1,251 | ..... |
| Valley View | Valley View Coal Co. | Mancos | Bituminous | 149 | 2 | 1,100 | ..... |
| Black Diamond | Black Diamond Coal Co. | Durango | Bituminous | 185 | 3 | 1,068 | 75 |
| Superior | Superior Fuel Co. | Durango | Bituminous | 139 | 2 | 1,007 | ..... |
| Triangle | Triangle Coal Co. | Durango | Bituminous | 185.5 | 1 | 763 | 20 |
| Peerless | Peerless Coal Co. | Durango | Bituminous | 80 | 2 | 731 | 9 |
| Morning Glory | Chas. Yingling | Bayfield | Bituminous | 118 | 1 | 552 | 5 |

TABLE D—1934—Continued.
LAS ANIMAS COUNTY—Continued

| Name of Mine | Name of Company | Mine Post Office | Character of Coal | Number of Days Worked | Average No. of Men Employed | Total Number of Tons Produced | Capacity of Mine per Day, Tons |
|------------------|--------------------------|------------------|-------------------|-----------------------|-----------------------------|-------------------------------|--------------------------------|
| Bear Canon No. 6 | Bear Canon Coal Co. | Vallorso | Bituminous | 56 | 40 | 14,358 | 1,000 |
| Rapson | Pio Micheli | Rapson | Bituminous | 152 | 23 | 13,471 | 300 |
| Sopris No. 1 | Deldosso Coal Co. | Sopris | Bituminous | 94.5 | 18 | 7,670 | 40 |
| Engle | Deldosso Coal Co. | Trinidad | Bituminous | 85 | 6 | 1,827 | 20 |
| Niggerhead | Niggerhead Mining Co. | Agullar | Bituminous | 93.5 | 33 | 6,223 | 50 |
| Thor | Thor Fuel Co. | Trinidad | Bituminous | 76.6 | 16 | 5,592 | 100 |
| Eureka (Anchor) | Phoenix Fuel Co. | Dicks | Bituminous | 38 | 44 | 4,076 | 100 |
| Jeffries | Jeffries Fuel Co. | Trinidad | Bituminous | 133 | 12 | 2,898 | 75 |
| Bowen | Home Fuel & Supply Co. | Trinidad | Bituminous | 154 | 4 | 2,855 | 30 |
| Frisco | Frisco Coal Co. | Trinidad | Bituminous | 158 | 5 | 2,014 | 13 |
| Daisy | Daisy Coal Co. | Agullar | Bituminous | 193 | 3 | 1,843 | ..... |
| Gem | Gem Coal Co. | Agullar | Bituminous | 148 | 4 | 1,635 | 20 |
| Forbes No. 9 | E. Riggs | Trinidad | Bituminous | 76 | 4 | 1,041 | 5 |
| Santa Fe | Santa Fe Coal Co. | Trinidad | Bituminous | 217 | 3 | 1,104 | 6 |
| Liberty | Liberty Coal Co. | Agullar | Bituminous | 142 | 2 | 999 | ..... |
| Flag | Joe Roggero | Trinidad | Bituminous | 200 | 1 | 871 | 10 |
| Burro Canon | Demetrio Sanchez | Boncarbo | Bituminous | 180 | 2 | 720 | 4 |
| Star | Eugene West | Rugby | Bituminous | 102 | 2 | 689 | ..... |
| Owen | W. H. Owen | Trinidad | Bituminous | 120 | 2 | 685 | ..... |
| Crystal | Bowman & Son | Dicks | Bituminous | 300 | 2 | 641 | 3 |
| Tucker | Sunrise Coal Co. | Trinidad | Bituminous | 175 | 2 | 659 | 25 |
| Baldy | Baldy Coal Co. | Trinidad | Bituminous | 80 | 3 | 511 | ..... |
| Midnight | Midnight Coal Co. | Walsenburg | Bituminous | 74 | 3 | 471 | 10 |
| J. M. | Trinidad Supply Coal Co. | Trinidad | Bituminous | 106 | 2 | 493 | 4 |
| Fishers Peak | Walter Marsh | Trinidad | Bituminous | 113 | 1 | 435 | ..... |
| Martorano | M. Martorano & Son | Sopris | Bituminous | 90 | 2 | 433 | ..... |
| Bagley | Ideal Coal Co. | Trinidad | Bituminous | 150 | 2 | 299 | 10 |

LAS ANIMAS COUNTY—Continued

| | | | | | | |
|----------------|------------------------------------|---------------|-----------------|-------|---------|----|
| Rainbow..... | Rainbow Coal Co..... | Trinidad..... | Bituminous..... | 3 | 250 | 14 |
| Trujillo..... | L. Trujillo..... | Valdez..... | Bituminous..... | 3 | 250 | |
| Beshoar..... | W. M. G. Wilton..... | Trinidad..... | Bituminous..... | 2 | 203 | 6 |
| Pritchard..... | F. J. Pritchard..... | Trinidad..... | Bituminous..... | 2 | 231 | 10 |
| Wiley..... | Dan Fredizzi..... | Cokedale..... | Bituminous..... | 2 | 191 | |
| Martinez..... | Ralph Martinez..... | Cokedale..... | Bituminous..... | 1 | 190 | 1 |
| Bueno..... | Jose Y. Bueno..... | Trinidad..... | Bituminous..... | 2 | 180 | 5 |
| Fairview..... | Ben C. Lucia..... | Sopris..... | Bituminous..... | 2 | 176 | |
| Garcla..... | Benito Garcla..... | Boncarbo..... | Bituminous..... | 1 | 150 | |
| Peacock..... | John A. Hollingsworth..... | Trinidad..... | Bituminous..... | 2 | 144 | 10 |
| Stonewall..... | Arrowhead Coal Co..... | Weston..... | Bituminous..... | 1 | 100 | 1 |
| Jackson..... | Standard Coal Co..... | Trinidad..... | Bituminous..... | 1 | 100 | |
| | Number of Mines operated : 49..... | | | 1,591 | 863,472 | |
| | | | | 126.5 | | |

MESA COUNTY

| | | | | | | |
|-------------------------|----------------------------------|---------------------|----------------------|----|--------|-----|
| Cameo..... | Kerr Coal Co..... | Cameo..... | Semi-bituminous..... | 41 | 22,748 | 600 |
| Mt. Garfield..... | B. Gearhart..... | Pallsade..... | Semi-bituminous..... | 8 | 6,646 | 50 |
| Pallsade..... | Pallsade Clean Heat Coal Co..... | Pallsade..... | Semi-bituminous..... | 16 | 5,090 | 100 |
| Garfield..... | Garfield Coal Co..... | Pallsade..... | Semi-bituminous..... | 9 | 3,204 | |
| Winger..... | Clarke Coal Co..... | Pallsade..... | Semi-bituminous..... | 3 | 2,452 | 50 |
| Blue Flame..... | Martin Coal Co..... | Pallsade..... | Semi-bituminous..... | 4 | 2,519 | 20 |
| Stove Canon..... | Stove Canon Coal Co..... | Fruita..... | Semi-bituminous..... | 3 | 1,625 | 40 |
| River View (P. V.)..... | Riverview Coal Co..... | Cameo..... | Semi-bituminous..... | 3 | 1,955 | 10 |
| Midwest..... | Midwest Red Arrow Coal Co..... | Pallsade..... | Semi-bituminous..... | 5 | 1,778 | 40 |
| McGinley..... | Wm. McGinley..... | Grand Junction..... | Bituminous..... | 2 | 1,659 | 25 |
| Thomas..... | Thomas Coal Co..... | Grand Junction..... | Bituminous..... | 4 | 1,661 | 15 |
| Riverside..... | Riverside Coal Co..... | Pallsade..... | Semi-bituminous..... | 5 | 1,501 | |
| Hidden Treasure..... | Hidden Treasure Coal Co..... | Fruita..... | Semi-bituminous..... | 2 | 1,007 | 50 |
| Williams..... | Williams Coal Co..... | Grand Junction..... | Semi-bituminous..... | 3 | 1,067 | |
| Mundell..... | J. W. Mundell..... | Grand Junction..... | Semi-bituminous..... | 2 | 1,041 | 5 |
| Hunter..... | J. B. Hunter..... | Fruita..... | Semi-bituminous..... | 2 | 959 | |
| Stokes..... | W. D. Stokes..... | Pallsade..... | Semi-bituminous..... | 3 | 938 | 50 |
| Farmer No. 1..... | Farmers Mutual Coal Co..... | Grand Junction..... | Semi-bituminous..... | 2 | 809 | 25 |

TABLE D—1934—Continued.
MESA COUNTY—Continued

| Name of Mine | Name of Company | Mine Post Office | Character of Coal | Number of Days Worked | Average No. of Men Employed | Total Number of Tons Produced | Capacity of Mine per Day, Tons |
|-------------------|--------------------------------------------|---------------------|----------------------|-----------------------|-----------------------------|-------------------------------|--------------------------------|
| Garvy..... | Garvy Coal Co..... | Fruita..... | Semi-bituminous..... | 259 | 2 | 640 | 10 |
| Nearing..... | Mesa County Quality Coal Co..... | Fruita..... | Semi-bituminous..... | 157 | 3 | 633 | 10 |
| Peacock..... | Peacock Coal Co..... | Grand Junction..... | Semi-bituminous..... | 180 | 2 | 598 | 4 |
| Anchor..... | Anchor Coal Co..... | Grand Junction..... | Semi-bituminous..... | 148 | 2 | 542 | 6 |
| Corcoran..... | Joe Worthington..... | Grand Junction..... | Semi-bituminous..... | 120 | 1 | 400 | ..... |
| Jarvis..... | Clarence Allen..... | Grand Junction..... | Semi-bituminous..... | 60 | 2 | 154 | ..... |
| Coal Gulch..... | Coal Gulch Coal Co..... | Loma..... | Semi-bituminous..... | 60 | 1 | 152 | ..... |
| Mt. Lincoln..... | Mt. Lincoln Coal Co..... | Pallsade..... | Semi-bituminous..... | 90 | 2 | 150 | ..... |
| Marinelli..... | Mike Marinelli..... | Fruita..... | Semi-bituminous..... | 40 | 2 | 138 | 3 |
| Kannah Creek..... | Kannah Creek Co-op. Coal Mining Ass'n..... | Whitewater..... | Semi-bituminous..... | 16 | 2 | 51 | 5 |
| Number | of Mines operated: 28..... | ..... | ..... | 145.1 | 136 | 62,117 | ..... |

MOFFAT COUNTY

| | | | | | | | |
|----------------|---------------------------|--------------|---------------------|-------|---|-------|-------|
| Knez..... | Joe Knez..... | Craig..... | Bituminous..... | 187 | 2 | 1,232 | ..... |
| Shaver..... | C. G. Phelan..... | Axial..... | Bituminous..... | 200 | 2 | 1,209 | ..... |
| Community..... | Community Coal Co..... | Craig..... | Sub-bituminous..... | 77 | 1 | 389 | ..... |
| Blair..... | Blair Coal Co..... | Craig..... | Sub-bituminous..... | 187 | 1 | 240 | ..... |
| Hart..... | Thomas Green..... | Craig..... | Sub-bituminous..... | 59 | 1 | 141 | ..... |
| Wisconsin..... | Wisconsin Coal M. Co..... | Craig..... | Sub-bituminous..... | 75 | 1 | 81 | ..... |
| Shelton..... | H. D. Shelton..... | Maybell..... | Sub-bituminous..... | 12 | 1 | 30 | ..... |
| Number | of Mines operated: 7..... | ..... | ..... | 131.5 | 9 | 3,322 | ..... |

MONTEZUMA COUNTY

| | | | | | | |
|---------------------------|----------------------------|---------------------|-------|----|-------|----|
| Hill Top..... | Mancos Hill Coal Co..... | Mancos..... | 189 | 6 | 1,950 | 50 |
| Dolores..... | Dominick Gorbella..... | Dolores..... | 175 | 2 | 1,310 | 5 |
| Mancos..... | Mancos Coal Co..... | Sub-bituminous..... | 190 | 2 | 972 | |
| Willden..... | Willden Coal Co..... | Sub-bituminous..... | 184 | 10 | 791 | |
| Mesa Verde..... | Earnest Black..... | Sub-bituminous..... | 109 | | 637 | |
| Morris..... | G. W. Morris..... | Sub-bituminous..... | 59 | 2 | 557 | 4 |
| Spencer..... | Geo. S. Spencer..... | Sub-bituminous..... | 120 | 1 | 521 | |
| Cortez..... | Cortez Coal Co..... | Sub-bituminous..... | 100 | 2 | 484 | |
| Pinos Altos..... | H. A. Ainsworth..... | Sub-bituminous..... | 78 | 2 | 168 | |
| Stakish (Ocean Wave)..... | Geo. Stakish..... | Sub-bituminous..... | 20 | 1 | 57 | |
| Number | of Mines operated: 10..... | | 131.2 | 30 | 7,447 | |

MONTROSE COUNTY

| | | | | | | |
|----------------------|---------------------------|---------------------|-----|---|-------|----|
| Liberty Bell..... | King & Mitchell..... | Naturita..... | 314 | 2 | 911 | 10 |
| Rice..... | Arthur Rice..... | Sub-bituminous..... | 132 | 1 | 233 | |
| Independence..... | Wm. J. Oberding..... | Sub-bituminous..... | 100 | 1 | 200 | |
| Pleasant Valley..... | M. L. Holder..... | Sub-bituminous..... | 50 | 1 | 100 | 2 |
| Number | of Mines operated: 4..... | | 182 | 5 | 1,444 | |

OURAY COUNTY

| | | | | | | |
|---------------------|---------------------------|---------------------|-------|---|-----|--|
| Bright Diamond..... | C. D. Slagle..... | Sub-bituminous..... | 300 | 2 | 377 | |
| Kennedy..... | H. A. Kennedy..... | Sub-bituminous..... | 90 | 1 | 382 | |
| Colona..... | Colona Coal Co..... | Sub-bituminous..... | 15 | 1 | 37 | |
| Number | of Mines operated: 3..... | | 176.1 | 4 | 796 | |

PITKIN COUNTY

| | | | | | | |
|--------------|---------------------------|-----------------|-----|---|-------|--|
| Placita..... | Placita Mine L. Co..... | Bituminous..... | 100 | 2 | 1,093 | |
| Number | of Mines operated: 1..... | | 100 | 2 | 1,093 | |

TABLE D—1934—Continued.
RIO BLANCO COUNTY

| Name of Mine | Name of Company | Mine Post Office | Character of Coal | Number of Days Worked | Average No. of Men Employed | Total Number of Tons Produced | Capacity of Mine per Day, Tons |
|-------------------|----------------------------|-------------------|-------------------|-----------------------|-----------------------------|-------------------------------|--------------------------------|
| New Pollard | C. F. Pollard | Meeker | Bituminous | 239 | 2 | 1,813 | 10 |
| Pollard | Electric Coal Co. | Meeker | Bituminous | 262 | 2 | 1,430 | 50 |
| McKee | Electric Coal Co. | Meeker | Bituminous | 41 | 1 | 72 | ..... |
| Rio Blanco | Ivor Adair | Rio Blanco | Bituminous | 213 | 2 | 878 | ..... |
| Reinau | R. C. Reinau | Meeker | Bituminous | 124 | 1 | 602 | ..... |
| Johnny Boy | Hart & Son | Meeker | Bituminous | 181 | 1 | 562 | 10 |
| Nine Mile | Thos. D. Foreman | Meeker | Bituminous | 216 | 1 | 478 | 50 |
| Douglas Creek | Jones & Trachta | Rangely | Bituminous | 30 | 2 | 79 | 4 |
| Number | of Mines operated : 8 | | | 168.1 | 12 | 5,914 | |
| ROUTT COUNTY | | | | | | | |
| Harris | Colorado & Utah Coal Co. | Mt. Harris | Bituminous | 65.1 | 148 | 102,173 | 4,000 |
| Moffat Nos. 1 & 2 | Moffat Coal Co. | Oak Creek | Bituminous | 94.9 | 182 | 97,984 | 4,000 |
| Hayden No. 3 | Hayden Coal Co. | Haybro | Bituminous | 72 | 121 | 90,603 | 1,500 |
| Pinnacle | Victor-American Fuel Co. | Oak Creek | Bituminous | 94 | 119 | 68,188 | 1,500 |
| Wadge | Victor-American Fuel Co. | Mt. Harris | Bituminous | 46 | 40 | 22,869 | 1,000 |
| Bear River | Bear River Coal Co. | Bear River | Bituminous | 100 | 52 | 42,276 | 1,000 |
| Keystone | Keystone Coal Co. | Routt | Bituminous | 75.5 | 62 | 33,358 | 1,000 |
| Putehar Knife | Frank Coryell | Bear River | Bituminous | 78 | 8 | 8,382 | ..... |
| McNeil | W. H. Nelsch | McGregor | Bituminous | 300 | 5 | 5,741 | 40 |
| Argo Gulch | Geo. T. Rolfee | Oak Creek | Bituminous | 172 | 6 | 4,758 | 50 |
| Seven Point | Routt County Mining Co. | Phippsburg | Bituminous | 123 | 7 | 4,194 | 150 |
| P. K. No. 1 | Pinnacle-Kemmerer Fuel Co. | Mt. Harris | Bituminous | 10.5 | 35 | 2,825 | 500 |
| Block | E. H. Zimmerman | Steamboat Springs | Bituminous | 200 | 2 | 1,351 | 25 |

ROUTT COUNTY—Continued

| | | | | | | |
|--------------------|-------------------------------|------------------------|----------------------|------|-----|---------|
| Babson..... | Babson Coal Co..... | Hayden..... | Bituminous..... | 108 | 2 | 1,056 |
| Hayden Valley..... | Hayden Valley Coal M. Co..... | Hayden..... | Semi-bituminous..... | 138 | 2 | 941 |
| Black Cat..... | Black Cat Coal Co..... | Bear River..... | Bituminous..... | 150 | 2 | 909 |
| Apex..... | Geo. Steel & Co..... | Oak Creek..... | Bituminous..... | 90 | 3 | 739 |
| Premium..... | Fruth & Micheletti..... | Milner..... | Bituminous..... | 133 | 2 | 673 |
| Babich..... | Nick Babich..... | Oak Creek..... | Bituminous..... | 100 | 1 | 500 |
| Ritchneg..... | Little Pinnacle Coal Co..... | Bear River..... | Bituminous..... | 51 | 2 | 421 |
| Jones..... | Jones Coal Co..... | Bear River..... | Bituminous..... | 100 | 2 | 342 |
| Morgan..... | John Pollo, Jr..... | Steamboat Springs..... | Bituminous..... | 51 | 1 | 306 |
| Blue Spruce..... | W. L. Jones..... | Oak Creek..... | Bituminous..... | 250 | 2 | 373 |
| Ben Male..... | Donald Cline..... | Oak Creek..... | Bituminous..... | 92 | 3 | 297 |
| Chergo..... | Tom Chergo..... | Oak Creek..... | Bituminous..... | 50 | 1 | 250 |
| Amos..... | Amos Coal Co..... | Milner..... | Bituminous..... | 62.5 | 1 | 220 |
| Webber..... | J. E. Webber..... | Pagoda..... | Bituminous..... | 35 | 1 | 152 |
| Number | of Mines operated : 27..... | | | 81 | 812 | 491,881 |

SAN MIGUEL COUNTY

| | | | | | | |
|--------------------|----------------------------|--------------|---------------------|-----|---|-------|
| Keck-Reliance..... | A. E. Hardman & Son..... | Norwood..... | Sub-bituminous..... | 150 | 2 | 420 |
| Elder..... | Gene Elder..... | Norwood..... | Sub-bituminous..... | 146 | 2 | 332 |
| Gray..... | L. J. Gray..... | Norwood..... | Sub-bituminous..... | 150 | 1 | 310 |
| Marriott..... | Wm. Marriott..... | Norwood..... | Sub-bituminous..... | 86 | 1 | 162 |
| Horton..... | Horton Coal Co..... | Norwood..... | Sub-bituminous..... | 90 | 1 | 154 |
| Number | of Mines operated : 5..... | | | 132 | 7 | 1,378 |

WELD COUNTY

| | | | | | | |
|---------------------|-----------------------------|----------------|---------------------|-----|-----|---------|
| Columbine..... | Rocky Mountain Fuel Co..... | Serene..... | Sub-bituminous..... | 214 | 263 | 222,881 |
| Grant..... | Rocky Mountain Fuel Co..... | Frederick..... | Sub-bituminous..... | 221 | 124 | 149,317 |
| Morrison..... | Clayton Coal Co..... | Erie..... | Sub-bituminous..... | 126 | 148 | 127,487 |
| Clayton..... | Clayton Coal Co..... | Erie..... | Sub-bituminous..... | 101 | 125 | 89,592 |
| Boulder Valley..... | Boulder Valley Coal Co..... | Erie..... | Sub-bituminous..... | 125 | 96 | 161,148 |
| | | | | | | 1,600 |
| | | | | | | 1,000 |
| | | | | | | 2,000 |
| | | | | | | 2,000 |

TABLE D—1934—Continued.
WELD COUNTY—Continued

| Name of Mine | Name of Company | Mine Post Office | Character of Coal | Number of Days Worked | Average No. of Men Employed | Total Number of Tons Produced | Capacity of Mine per Day, Tons |
|--------------|------------------------------|------------------|-------------------|-----------------------|-----------------------------|-------------------------------|--------------------------------|
| Imperial | Imperial Coal Co. | Erie | Sub-bituminous | 183 | 123 | 121,775 | 1,200 |
| Russell | Wm. E. Russell Coal Co. | Frederick | Sub-bituminous | 185 | 78 | 103,702 | 500 |
| Sterling | McNeil Coal Corp. | Dacono | Sub-bituminous | 174 | 91 | 89,662 | 1,000 |
| Baum | Consolidated Coal & Coke Co. | Dacono | Sub-bituminous | 161.8 | 106 | 84,622 | 800 |
| Puritan | National Fuel Co. | Frederick | Sub-bituminous | 92.7 | 159 | 81,808 | 1,600 |
| Shamrock | Shamrock Coal Co. | Frederick | Sub-bituminous | 113.6 | 84 | 78,086 | 800 |
| Lilley | Lilley Coal & Land Co. | Frederick | Sub-bituminous | 195 | 42 | 42,259 | 200 |
| Monroe | Monroe Coal Co. | Lafayette | Sub-bituminous | 242 | 20 | 12,324 | 80 |
| La Salle | La Salle Coal Co. | La Salle | Sub-bituminous | 217 | 4 | 2,201 | ..... |
| Buddy | Buddy Coal Co. | La Salle | Sub-bituminous | 179 | 2 | 1,814 | 50 |
| Bohlender | Bohlender Coal Co. | La Salle | Sub-bituminous | 104 | 7 | 1,440 | 20 |
| White Ash | White Ash Coal Co. | La Salle | Sub-bituminous | 190 | 3 | 1,213 | 15 |
| Christy | Christy Coal Co. | La Salle | Sub-bituminous | 154 | 5 | 873 | ..... |
| Coalridge | Black King Coal Co. | Firestone | Sub-bituminous | 90 | 5 | 750 | 15 |
| Silver State | R. E. Combs | Ft. Lupton | Sub-bituminous | 75 | 4 | 676 | 15 |
| Hill | Hill Coal Co. | Briggsdale | Sub-bituminous | 106 | 2 | 451 | 20 |
| Sunset | E. E. Phillips | Evans | Sub-bituminous | 77 | 3 | 89 | 10 |
| | of Mines operated: 22 | | | 159 | 1,494 | 1,374,170 | |

STATE OF COLORADO

| | |
|---------------------------------------------|-----------|
| Total Number of Mines Operated..... | 352 |
| Total Number of Man-Days Worked..... | 142,9+ |
| Total Number of Men Employed (Average)..... | 8,138 |
| Total Number of Tons of Coal Produced..... | 5,251,003 |

PRODUCTION BY COUNTIES BY MONTHS, 1931

| Month | Arch- uleta | Boulder | Delta | Elbert | El Paso | Fremont | Garfield |
|-----------|----------------|---------|--------|--------|---------|---------|----------|
| January | ---- | 55,209 | 9,316 | 537 | 47,498 | 49,483 | 3,688 |
| February | ---- | 39,020 | 3,968 | 355 | 35,260 | 21,644 | 2,245 |
| March | ---- | 47,086 | 4,581 | 307 | 40,518 | 26,035 | 2,646 |
| April | ---- | 30,747 | 2,809 | 146 | 27,825 | 11,723 | 2,004 |
| May | ---- | 22,659 | 2,378 | 42 | 23,343 | 24,408 | 1,683 |
| June | ---- | 11,761 | 1,438 | 13 | 14,634 | 14,637 | 1,299 |
| July | ---- | 14,278 | 788 | 23 | 13,258 | 9,653 | 1,058 |
| August | ---- | 31,652 | 3,465 | 14 | 15,135 | 23,814 | 1,590 |
| September | ---- | 57,958 | 5,617 | 78 | 19,549 | 37,504 | 2,383 |
| October | ---- | 50,453 | 6,078 | 525 | 27,985 | 41,588 | 3,154 |
| November | ---- | 57,613 | 7,963 | 561 | 38,245 | 40,174 | 3,630 |
| December | 1,106 | 80,697 | 11,801 | 535 | 42,728 | 46,693 | 5,067 |
| Total | 1,106 | 499,133 | 60,202 | 3,136 | 345,978 | 347,356 | 30,447 |

| Month | Gunni- son | Huerfano | Jackson | Jefferson | La Plata | Las Animas | Larimer |
|-----------|---------------|----------|---------|-----------|-------------|---------------|---------|
| January | 43,157 | 99,127 | 4,192 | 16,425 | 4,106 | 158,982 | ---- |
| February | 21,051 | 58,185 | 1,927 | 13,162 | 2,604 | 120,806 | ---- |
| March | 29,199 | 64,346 | 3,934 | 13,749 | 2,163 | 136,856 | ---- |
| April | 13,081 | 43,913 | 2,527 | 11,517 | 1,483 | 114,665 | ---- |
| May | 21,127 | 73,239 | 2,495 | 9,260 | 1,457 | 102,480 | ---- |
| June | 20,310 | 67,583 | 2,004 | 8,279 | 958 | 97,470 | ---- |
| July | 22,714 | 55,982 | 1,304 | 8,677 | 1,021 | 85,889 | ---- |
| August | 34,098 | 74,736 | 2,132 | 8,177 | 1,429 | 99,934 | ---- |
| September | 45,967 | 93,429 | 3,108 | 8,343 | 3,145 | 112,432 | ---- |
| October | 59,297 | 117,138 | 7,617 | 11,956 | 4,129 | 115,616 | ---- |
| November | 47,151 | 121,143 | 6,102 | 14,241 | 3,225 | 87,739 | ---- |
| December | 47,057 | 106,576 | 6,956 | 16,588 | 5,942 | 101,130 | 1,914 |
| Total | 404,209 | 975,397 | 44,298 | 140,374 | 31,662 | 1,333,999 | 1,914 |

| Month | Mesa | Moffat | Monte- zuma | Mont- rose | Ouray | Park |
|-----------|--------|--------|----------------|---------------|-------|------|
| January | 10,912 | 303 | 587 | ---- | ---- | ---- |
| February | 7,400 | 88 | 289 | ---- | ---- | ---- |
| March | 7,782 | 136 | 317 | ---- | ---- | ---- |
| April | 5,578 | 109 | 189 | ---- | ---- | ---- |
| May | 5,139 | 135 | 221 | ---- | ---- | ---- |
| June | 4,168 | 54 | 225 | ---- | ---- | ---- |
| July | 5,503 | 97 | 82 | ---- | ---- | ---- |
| August | 5,788 | 1,022 | 73 | ---- | ---- | ---- |
| September | 7,778 | 318 | 342 | ---- | ---- | ---- |
| October | 9,038 | 673 | 294 | ---- | ---- | ---- |
| November | 9,584 | 364 | 341 | ---- | ---- | ---- |
| December | 14,009 | 654 | 2,025 | 1,143 | 1,742 | 200 |
| Total | 92,679 | 3,953 | 4,985 | 1,143 | 1,742 | 200 |

| Month | Pitkin | Rio Blanco | Routt | San Miguel | Weld | Total |
|-----------|--------|---------------|---------|---------------|-----------|-----------|
| January | 1,221 | 1,158 | 73,352 | ---- | 245,454 | 824,707 |
| February | 1,206 | 718 | 21,145 | ---- | 165,303 | 516,376 |
| March | 1,217 | 710 | 41,506 | ---- | 196,116 | 619,204 |
| April | 980 | 368 | 19,583 | ---- | 109,050 | 398,297 |
| May | 1,151 | 269 | 38,948 | ---- | 65,940 | 396,374 |
| June | 1,069 | 196 | 18,402 | ---- | 41,766 | 306,266 |
| July | 345 | 176 | 12,075 | ---- | 48,442 | 281,365 |
| August | 302 | 264 | 57,850 | ---- | 68,067 | 429,542 |
| September | 607 | 543 | 67,458 | ---- | 137,979 | 604,538 |
| October | 914 | 612 | 76,774 | ---- | 168,665 | 702,506 |
| November | 657 | 855 | 77,379 | ---- | 212,615 | 729,582 |
| December | 506 | 2,078 | 69,739 | 1,504 | 226,916 | 795,306 |
| Total | 10,175 | 7,947 | 574,211 | 1,504 | 1,686,313 | 6,604,063 |

PRODUCTION BY COUNTIES BY MONTHS, 1932

| Month | Arapahoe | Archuleta | Boulder | Delta | Elbert | El Paso | Fremont |
|-----------|----------|-----------|---------|--------|--------|---------|---------|
| January | --- | --- | 79,178 | 7,155 | 514 | 44,527 | 43,430 |
| February | --- | --- | 65,332 | 5,635 | 490 | 34,124 | 33,097 |
| March | --- | --- | 59,539 | 4,282 | 282 | 37,365 | 26,786 |
| April | --- | --- | 30,577 | 2,026 | 101 | 23,919 | 14,622 |
| May | --- | --- | 17,056 | 1,805 | 38 | 14,613 | 7,335 |
| June | --- | --- | 13,538 | 1,661 | 57 | 12,243 | 9,607 |
| July | --- | --- | 14,036 | 1,478 | --- | 10,618 | 10,207 |
| August | --- | --- | 23,011 | 2,321 | --- | 13,548 | 20,244 |
| September | --- | --- | 60,715 | 3,840 | 53 | 17,998 | 41,714 |
| October | --- | --- | 60,965 | 6,201 | 840 | 26,876 | 51,257 |
| November | --- | --- | 57,993 | 6,916 | 710 | 30,573 | 39,081 |
| December | 290 | 751 | 89,494 | 7,489 | 1,214 | 47,190 | 60,607 |
| Total | 290 | 751 | 571,534 | 50,809 | 4,299 | 313,599 | 357,987 |

| Month | Garfield | Gunnison | Huerfano | Jackson | Jefferson | La Plata | Larimer |
|-----------|----------|----------|----------|---------|-----------|----------|---------|
| January | 4,321 | 44,134 | 98,848 | 5,958 | 16,197 | 3,693 | 541 |
| February | 3,516 | 39,074 | 71,299 | 5,143 | 15,192 | 2,468 | 279 |
| March | 2,458 | 22,072 | 60,428 | 3,304 | 15,173 | 1,064 | 263 |
| April | 1,900 | 13,023 | 34,626 | 3,000 | 9,935 | 1,050 | 67 |
| May | 1,522 | 15,955 | 35,108 | 1,771 | 8,954 | 1,283 | 9 |
| June | 1,299 | 14,486 | 32,240 | 1,423 | 7,531 | 880 | 26 |
| July | 958 | 15,866 | 21,025 | 1,053 | 8,912 | 988 | 10 |
| August | 1,773 | 29,598 | 35,178 | 860 | 8,659 | 1,250 | 55 |
| September | 2,431 | 51,703 | 64,294 | 3,538 | 9,442 | 2,421 | 166 |
| October | 3,221 | 66,921 | 82,743 | 7,038 | 8,913 | 4,102 | 862 |
| November | 3,777 | 48,880 | 69,533 | 5,283 | 10,925 | 3,432 | 1,023 |
| December | 6,268 | 43,002 | 73,170 | 5,111 | 12,542 | 3,347 | 1,384 |
| Total | 33,444 | 404,714 | 678,492 | 43,482 | 132,380 | 25,978 | 4,679 |

| Month | Las Animas | Mesa | Moffat | Montezuma | Montrose | Ouray | Park |
|-----------|------------|--------|--------|-----------|----------|-------|------|
| January | 103,277 | 10,761 | 436 | 786 | --- | --- | --- |
| February | 90,063 | 7,500 | 358 | 481 | --- | --- | --- |
| March | 97,811 | 6,248 | 99 | 345 | --- | --- | --- |
| April | 61,909 | 3,789 | 179 | 133 | --- | --- | --- |
| May | 55,244 | 3,351 | 133 | 127 | --- | --- | --- |
| June | 62,233 | 2,068 | 117 | 67 | --- | --- | --- |
| July | 34,280 | 2,490 | 81 | 44 | --- | --- | --- |
| August | 49,588 | 3,388 | 156 | 116 | --- | --- | --- |
| September | 73,117 | 4,902 | 417 | 249 | --- | --- | --- |
| October | 77,616 | 6,997 | 216 | 482 | --- | --- | --- |
| November | 74,055 | 7,334 | 339 | 412 | --- | --- | --- |
| December | 79,344 | 11,502 | 684 | 1,806 | 1,279 | 1,133 | 300 |
| Total | 858,537 | 70,330 | 3,215 | 5,048 | 1,279 | 1,133 | 300 |

| Month | Pitkin | Rio Blanco | Routt | San Miguel | Weld | Total |
|-----------|--------|------------|---------|------------|-----------|-----------|
| January | 410 | 944 | 83,920 | --- | 213,209 | 762,239 |
| February | 707 | 646 | 63,498 | --- | 160,219 | 599,171 |
| March | 175 | 489 | 52,592 | --- | 162,124 | 552,904 |
| April | --- | 338 | 7,662 | --- | 66,845 | 275,701 |
| May | --- | 147 | 6,969 | --- | 35,433 | 206,853 |
| June | --- | 239 | 18,152 | --- | 32,213 | 210,129 |
| July | --- | 208 | 18,438 | --- | 35,503 | 176,195 |
| August | --- | 271 | 35,733 | --- | 50,111 | 275,860 |
| September | --- | 438 | 79,994 | --- | 112,669 | 530,101 |
| October | 210 | 745 | 76,000 | --- | 166,627 | 648,832 |
| November | 150 | 884 | 51,180 | --- | 187,452 | 599,932 |
| December | 200 | 1,929 | 80,115 | 832 | 247,625 | 778,608 |
| Total | 1,852 | 7,278 | 574,253 | 832 | 1,470,030 | 5,616,525 |

PRODUCTION BY COUNTIES BY MONTHS, 1933

| Month | Adams | Arapahoe | Archuleta | Boulder | Delta | Elbert | El Paso |
|--------------|------------|------------|------------|----------------|---------------|--------------|----------------|
| January | ---- | ---- | ---- | 68,456 | 6,364 | 449 | 37,649 |
| February | ---- | ---- | ---- | 70,155 | 6,361 | 519 | 37,383 |
| March | ---- | ---- | ---- | 38,082 | 2,312 | 368 | 30,756 |
| April | ---- | ---- | ---- | 29,942 | 3,003 | 191 | 25,281 |
| May | ---- | ---- | ---- | 15,759 | 2,304 | 117 | 19,119 |
| June | ---- | ---- | ---- | 6,808 | 632 | 52 | 11,571 |
| July | ---- | ---- | ---- | 8,346 | 3,846 | ---- | 12,212 |
| August | ---- | ---- | ---- | 23,984 | 3,341 | 54 | 14,796 |
| September | ---- | ---- | ---- | 58,997 | 4,091 | 207 | 20,707 |
| October | ---- | ---- | ---- | 51,855 | 4,077 | 746 | 23,756 |
| November | ---- | ---- | ---- | 38,914 | 4,316 | 665 | 29,988 |
| December | 311 | 180 | 757 | 55,793 | 5,274 | 833 | 36,609 |
| Total | 311 | 180 | 757 | 467,091 | 45,921 | 4,201 | 299,827 |

| Month | Fremont | Garfield | Gunnison | Huerfano | Jackson | Jefferson | La Plata |
|--------------|----------------|---------------|----------------|----------------|---------------|----------------|---------------|
| January | 39,526 | 3,944 | 35,841 | 49,456 | 2,264 | 12,219 | 2,888 |
| February | 44,542 | 2,286 | 35,625 | 52,792 | 3,532 | 11,388 | 2,854 |
| March | 19,900 | 1,598 | 23,240 | 24,971 | 1,475 | 10,577 | 1,608 |
| April | 15,326 | 1,472 | 16,130 | 28,233 | 1,707 | 9,532 | 1,255 |
| May | 22,057 | 1,512 | 31,372 | 38,936 | 1,547 | 8,285 | 1,642 |
| June | 9,070 | 1,125 | 15,445 | 28,187 | 90 | 7,992 | 1,175 |
| July | 16,188 | 1,774 | 21,385 | 24,863 | 534 | 9,567 | 966 |
| August | 28,528 | 1,365 | 47,401 | 58,716 | 1,145 | 10,207 | 1,775 |
| September | 44,949 | 1,910 | 48,084 | 67,415 | 3,117 | 11,919 | 3,038 |
| October | 39,011 | 2,312 | 49,404 | 72,198 | 3,622 | 14,874 | 3,128 |
| November | 35,714 | 3,183 | 43,764 | 71,088 | 3,467 | 17,728 | 2,957 |
| December | 37,782 | 5,306 | 37,982 | 64,203 | 5,507 | 18,755 | 4,307 |
| Total | 352,593 | 27,787 | 405,673 | 581,058 | 28,007 | 143,043 | 27,593 |

| Month | Larimer | Las Animas | Mesa | Moffat | Montezuma | Montrose | Ouray |
|--------------|--------------|----------------|---------------|--------------|--------------|--------------|------------|
| January | 832 | 68,464 | 9,178 | 192 | 674 | ---- | ---- |
| February | 772 | 84,800 | 8,690 | 159 | 381 | ---- | ---- |
| March | 394 | 74,839 | 4,935 | 23 | 150 | ---- | ---- |
| April | 226 | 58,648 | 4,298 | 39 | 217 | ---- | ---- |
| May | 328 | 42,604 | 3,030 | 17 | 167 | ---- | ---- |
| June | ---- | 39,237 | 1,862 | ---- | 137 | ---- | ---- |
| July | ---- | 41,865 | 4,342 | ---- | 101 | ---- | ---- |
| August | 26 | 79,961 | 6,175 | ---- | 237 | ---- | ---- |
| September | 215 | 90,218 | 5,817 | 273 | 374 | ---- | ---- |
| October | 443 | 100,849 | 7,206 | 157 | 640 | ---- | ---- |
| November | 769 | 87,189 | 9,321 | 1,458 | 619 | ---- | ---- |
| December | 1,305 | 88,616 | 12,071 | 2,605 | 1,969 | 1,447 | 407 |
| Total | 5,310 | 857,290 | 76,925 | 4,923 | 5,666 | 1,447 | 407 |

| Month | Pitkin | Rio Blanco | Routt | San Miguel | Weld | Total |
|--------------|--------------|--------------|----------------|--------------|------------------|------------------|
| January | 205 | 925 | 39,462 | ---- | 176,652 | 555,640 |
| February | 200 | 846 | 59,100 | ---- | 196,485 | 618,870 |
| March | 101 | 506 | 15,244 | ---- | 131,925 | 383,004 |
| April | 52 | 393 | 11,707 | ---- | 105,229 | 312,881 |
| May | 30 | 395 | 32,820 | ---- | 70,400 | 292,441 |
| June | 65 | 225 | 24,935 | ---- | 39,721 | 188,329 |
| July | 66 | 169 | 19,878 | ---- | 42,179 | 208,281 |
| August | 60 | 264 | 33,554 | ---- | 71,712 | 383,301 |
| September | 229 | 549 | 79,737 | ---- | 143,854 | 585,700 |
| October | 301 | 783 | 67,811 | ---- | 142,461 | 585,634 |
| November | 150 | 773 | 43,214 | ---- | 160,347 | 555,624 |
| December | 215 | 1,155 | 41,076 | 1,389 | 189,313 | 615,167 |
| Total | 1,674 | 6,983 | 468,538 | 1,389 | 1,470,278 | 5,284,872 |

PRODUCTION BY COUNTIES BY MONTHS, 1934

| Month | Adams | Archuleta | Boulder | Delta | Elbert | El Paso | Fremont |
|-----------|-------|-----------|---------|--------|--------|---------|---------|
| January | --- | --- | 53,623 | 4,219 | 510 | 35,695 | 37,212 |
| February | --- | --- | 52,114 | 2,570 | 440 | 32,804 | 31,053 |
| March | --- | --- | 45,573 | 1,975 | 454 | 32,737 | 27,557 |
| April | --- | --- | 25,312 | 2,095 | 159 | 21,991 | 14,020 |
| May | --- | --- | 17,567 | 515 | 111 | 14,248 | 8,950 |
| June | --- | --- | 16,012 | 442 | 103 | 12,171 | 8,898 |
| July | --- | --- | 11,546 | 2,574 | 40 | 11,493 | 10,519 |
| August | --- | --- | 21,738 | 2,150 | 91 | 15,245 | 22,750 |
| September | --- | --- | 55,039 | 4,414 | 268 | 22,815 | 41,126 |
| October | --- | --- | 48,404 | 5,948 | 502 | 24,552 | 47,628 |
| November | --- | --- | 50,976 | 4,617 | 572 | 30,452 | 48,198 |
| December | 421 | 917 | 64,710 | 7,154 | 2,747 | 39,059 | 65,892 |
| Total | 421 | 917 | 462,614 | 38,673 | 5,997 | 293,262 | 363,803 |

| Month | Garfield | Gunnison | Huerfano | Jackson | Jefferson | La Plata | Larimer |
|-----------|----------|----------|----------|---------|-----------|----------|---------|
| January | 2,794 | 34,332 | 54,588 | 1,879 | 15,476 | 2,169 | 679 |
| February | 1,777 | 23,058 | 42,099 | 2,667 | 13,793 | 1,714 | 392 |
| March | 1,628 | 30,150 | 52,599 | 2,186 | 11,732 | 1,625 | 377 |
| April | 2,055 | 17,657 | 31,934 | 1,687 | 10,040 | 1,189 | 119 |
| May | 1,572 | 30,370 | 43,366 | 1,287 | 8,834 | 1,055 | 10 |
| June | 1,543 | 14,851 | 17,694 | 866 | 8,618 | 988 | --- |
| July | 1,041 | 21,606 | 29,568 | 918 | 9,215 | 810 | --- |
| August | 1,850 | 46,210 | 50,143 | 943 | 10,307 | 1,334 | --- |
| September | 2,569 | 54,989 | 63,757 | 3,110 | 10,991 | 2,106 | 330 |
| October | 2,642 | 70,656 | 88,824 | 2,969 | 11,363 | 3,162 | 401 |
| November | 3,556 | 45,014 | 64,663 | 3,074 | 11,679 | 2,462 | 504 |
| December | 4,855 | 59,048 | 68,389 | 3,072 | 14,755 | 5,074 | 889 |
| Total | 27,882 | 447,971 | 607,624 | 24,658 | 136,808 | 23,638 | 3,701 |

| Month | Las Animas | Mesa | Moffat | Montezuma | Montrose | Ouray | Pitkin |
|-----------|------------|--------|--------|-----------|----------|-------|--------|
| January | 80,094 | 7,370 | 164 | 1,383 | --- | --- | 162 |
| February | 68,550 | 4,609 | 116 | 749 | --- | --- | 118 |
| March | 67,811 | 4,858 | 92 | 503 | --- | --- | 93 |
| April | 60,873 | 2,943 | 89 | 202 | --- | --- | 32 |
| May | 63,187 | 2,123 | 45 | 254 | --- | --- | 28 |
| June | 54,945 | 2,185 | 55 | 167 | --- | --- | 22 |
| July | 61,282 | 3,516 | 37 | 309 | --- | --- | 17 |
| August | 75,104 | 4,357 | 54 | 481 | --- | --- | 44 |
| September | 80,588 | 6,227 | 158 | 676 | --- | --- | 173 |
| October | 85,523 | 7,733 | 125 | 555 | --- | --- | 82 |
| November | 80,982 | 6,792 | 140 | 686 | --- | --- | 190 |
| December | 84,533 | 10,004 | 2,247 | 1,482 | 1,444 | 796 | 132 |
| Total | 863,472 | 62,117 | 3,322 | 7,447 | 1,444 | 796 | 1,093 |

| Month | Rio Blanco | Routt | San Miguel | Weld | Total |
|-----------|------------|---------|------------|-----------|-----------|
| January | 746 | 43,513 | --- | 157,281 | 533,889 |
| February | 520 | 29,203 | --- | 151,706 | 459,487 |
| March | 419 | 26,445 | --- | 130,523 | 439,337 |
| April | 270 | 15,234 | --- | 82,947 | 290,348 |
| May | 212 | 10,958 | --- | 48,697 | 253,389 |
| June | 186 | 15,467 | --- | 40,050 | 195,213 |
| July | 125 | 6,877 | --- | 49,547 | 221,040 |
| August | 227 | 22,767 | --- | 59,252 | 335,047 |
| September | 467 | 77,071 | --- | 155,735 | 582,609 |
| October | 631 | 95,182 | --- | 140,292 | 637,174 |
| November | 761 | 64,768 | --- | 165,888 | 585,974 |
| December | 1,350 | 84,396 | 1,378 | 192,252 | 716,996 |
| Total | 5,914 | 491,881 | 1,378 | 1,374,170 | 5,251,003 |

SHOWING COMPARATIVE ANNUAL PRODUCTION BY COUNTIES 1931-1934

| Counties | 1931 | 1932 | 1933 | 1934 |
|------------|-----------|-----------|-----------|-----------|
| Adams | ----- | ----- | 311 | 421 |
| Arapahoe | ----- | 290 | 180 | ----- |
| Archuleta | 1,106 | 751 | 757 | 917 |
| Boulder | 499,133 | 571,534 | 467,091 | 462,614 |
| Delta | 60,202 | 50,809 | 45,921 | 38,673 |
| Elbert | 3,136 | 4,299 | 4,201 | 5,997 |
| El Paso | 345,978 | 313,599 | 299,827 | 293,262 |
| Fremont | 347,356 | 357,987 | 352,593 | 363,803 |
| Garfield | 30,447 | 33,444 | 27,787 | 27,882 |
| Gunnison | 404,209 | 404,714 | 405,673 | 447,971 |
| Huerfano | 975,397 | 678,492 | 581,058 | 607,624 |
| Jackson | 44,298 | 43,482 | 28,007 | 24,658 |
| Jefferson | 140,374 | 132,380 | 143,043 | 136,808 |
| La Plata | 31,662 | 25,978 | 27,593 | 23,628 |
| Larimer | 1,914 | 4,679 | 5,310 | 3,701 |
| Las Animas | 1,333,999 | 858,537 | 857,290 | 863,472 |
| Mesa | 92,679 | 70,330 | 76,925 | 62,117 |
| Moffat | 3,953 | 3,215 | 4,923 | 3,322 |
| Montezuma | 4,985 | 5,048 | 5,666 | 7,447 |
| Montrose | 1,143 | 1,279 | 1,447 | 1,444 |
| Ouray | 1,742 | 1,133 | 407 | 796 |
| Pitkin | 10,175 | 1,852 | 1,674 | 1,093 |
| Park | 200 | 300 | ----- | ----- |
| Rio Blanco | 7,947 | 7,278 | 6,983 | 5,914 |
| Routt | 574,211 | 574,253 | 468,538 | 491,881 |
| San Miguel | 1,504 | 832 | 1,389 | 1,378 |
| Weld | 1,686,313 | 1,470,030 | 1,470,278 | 1,374,170 |
| Total | 6,604,063 | 5,616,525 | 5,284,872 | 5,251,003 |
| Decrease | ----- | ----- | ----- | ----- |

COAL PRODUCTION IN COLORADO FROM 1873 TO 1934, INCLUSIVE

| Year | Tons | Year | Tons |
|------|-----------|------|------------|
| 1873 | 69,977 | 1904 | 6,776,551 |
| 1874 | 87,372 | 1905 | 8,989,631 |
| 1875 | 98,838 | 1906 | 10,308,421 |
| 1876 | 117,666 | 1907 | 10,965,640 |
| 1877 | 160,000 | 1908 | 9,773,007 |
| 1878 | 200,630 | 1909 | 10,722,490 |
| 1879 | 322,732 | 1910 | 12,104,887 |
| 1880 | 375,000 | 1911 | 10,197,595 |
| 1881 | 706,744 | 1912 | 11,016,948 |
| 1882 | 1,161,479 | 1913 | 9,268,939 |
| 1883 | 1,220,593 | 1914 | 8,201,423 |
| 1884 | 1,130,024 | 1915 | 8,715,397 |
| 1885 | 1,398,796 | 1916 | 10,522,185 |
| 1886 | 1,436,211 | 1917 | 12,515,305 |
| 1887 | 1,791,735 | 1918 | 12,658,055 |
| 1888 | 2,185,477 | 1919 | 10,406,543 |
| 1889 | 2,400,629 | 1920 | 12,514,693 |
| 1890 | 3,075,781 | 1921 | 9,141,947 |
| 1891 | 3,512,632 | 1922 | 10,003,610 |
| 1892 | 3,771,234 | 1923 | 10,336,735 |
| 1893 | 3,947,056 | 1924 | 10,501,088 |
| 1894 | 3,021,028 | 1925 | 10,440,387 |
| 1895 | 3,339,495 | 1926 | 10,616,760 |
| 1896 | 3,371,632 | 1927 | 9,781,580 |
| 1897 | 3,565,660 | 1928 | 9,921,585 |
| 1898 | 4,174,037 | 1929 | 9,934,064 |
| 1899 | 4,826,939 | 1930 | 8,238,094 |
| 1900 | 5,495,734 | 1931 | 6,604,063 |
| 1901 | 6,021,405 | 1932 | 6,616,525 |
| 1902 | 7,522,923 | 1933 | 5,284,872 |
| 1903 | 7,775,302 | 1934 | 5,251,003 |

LIST OF FATAL ACCIDENTS WHICH OCCURRED IN THE
COAL MINES OF COLORADO, 1931

January 2—HERMAN GRANT, American (colored), driver, experience 25 years, age 41 years, married, four children, employed by the McNeil Coal Corp. at the Cameo mine, Mesa County, was injured by being kicked by a mule on December 31 and died two days later. The deceased was riding on the front end of a loaded car which was being pulled by a mule; a tail chain was being used and each car wheel had a sprag. When he was coming out of an entry one of the sprags broke causing the car to run faster and crowding the mule. The deceased remained on the front end of the car trying to keep the mule in the clear. There was sufficient clearance on both sides of the track and it is not known why he did not get off the car when the sprag broke. He stated to the mine foreman that he was in the act of putting up his foot on the rear of the mule to restrain the car from running too close to the mule when he was kicked. The deceased was considered a good driver, with years of experience. The accident might have been avoided had the deceased got off the car when the sprag broke, as there was plenty of clearance at this point, and would have been avoided if deceased had ridden on the rear end of the car.

January 5—SALVADOR LOPEZ, Mexican, pick miner, experience a year and six months, age 20 years, single, employed by the Colorado Fuel and Iron Co. at the Pictou mine, Huerfano County, was killed by a fall of draw rock. Deceased and his partner were working on a room pillar and had loaded about two cars when the draw rock along the face of the pillar where they had extracted the coal fell on him, killing him instantly. This place was not well timbered, as the distance from the track to the line of the coal face was eight feet, without any props being set. This accident probably would have been avoided had there been some props set, as the draw rock was not very thick—about eight inches. The accident may be charged to the poor judgment of the miners and to the mine foreman, who did not see that these men were not timbering according to his instructions, as he had visited the place about 4 a. m. and the accident occurred at 10 a. m.

January 7—THOMAS STRUTHERS, Scotch, mine foreman, experience 54 years, age 67 years, married, six children, employed by the Victor-American Fuel Co. at the Delagua mine, Las Animas County, was squeezed between a car and door frame on the sixth and died the following day from the effects of injury. At the time of the accident the deceased was acting as nipper for the motorman. He opened a trap door for the loaded trip to back so that they could pick up some more loaded cars that were in the back entry. After deceased had coupled three cars to the trip he flagged the motorman to pull out of this place. At this point it is necessary to set the last three brakes on the trip as it pulls out. In doing this the deceased was caught between the car and the door frame

and was rolled about, injuring him so severely that he died the next day. It is not known whether his clothing was caught on the car or unknowingly while setting the brakes he backed into the door frame and was caught. The accident is classed a misadventure for which no one can be blamed.

January 15—DANIEL TINOCO, Mexican, pick miner, experience nine years, age 27 years, married, one child, employed by the Colorado Fuel and Iron Co. at the Kebler No. 2 mine, Huerfano County, was killed by a rope trip. The deceased had finished work for the day and started to walk out to the main slope to the man trip station. He worked in the fifth panel and before he reached the fourth panel the trip that was being dropped from the fifth panel overtook him, striking him and killing him instantly. He did not hear this trip coming as the hoist at the fourth level panel was running at the time and the noise from it prevented him hearing the approaching trip. At the point where deceased was struck there is a double track and there was plenty of clearance to get out of the way. The accident was unforeseen and is classed as unavoidable.

February 17—CHARLES MADDONA, Italian, blacksmith, experience 11 years, age 43 years, single, employed by the Rocky Mountain Fuel Co. at the Standard mine, Boulder County, was injured January 7 by a tool striking his head and he died from its effects on the above date. At the time of the accident the deceased raised the apron on the chute preparatory to loading coal into a truck, when in some manner the handle of the windlass slipped from his hand and whirled around, striking his forehead and causing a severe laceration. This was dressed immediately by the doctor in the mine office and he returned to work to finish the shift. He continued to work for several days, but on February 3 he took very ill, complaining of a severe headache. He was taken to a hospital, where he died. The accident was a misadventure for which no one could be held responsible.

March 9—TONY JAMES, Italian, machine miner, experience 38 years, age 52 years, married, one child, employed by the Rocky Mountain Fuel Co. at the Grant mine, Weld County, was killed by a fall of top coal from side of entry. Deceased and his partner were cleaning up a fall of top coal in an entry and while loading the ninth car another fall occurred, striking deceased in such manner that it forced him over the car, killing him instantly. The seam is from nine to 10 feet thick, $3\frac{1}{2}$ feet being left for roof. This top coal is cut in center of places until it reaches the roof proper, thus leaving the sides hanging over. In some instances they are secured by braces, but generally no supports are used. The accident might have been avoided had the sides been braced or timbered in advance of the fall. The mine foreman had visited the place fifteen minutes prior to the accident. The responsibility for the accident is placed jointly on the management and deceased.

March 11—F. G. MERRITT, English, machine miner, experience 25 years, age 60 years, married, four children, employed by the Leyden Lignite Co. at the Leyden mine, Jefferson County, was killed by a fall of rock and coal. Deceased and partner were cleaning up a fall of coal at neck of room. They had sounded the roof and considered it safe just a few minutes before the fall and the mine foreman had just left the place when, without warning, rock and coal fell striking deceased. Apparently a bump occurred in close proximity which jarred the rock and coal loose. The accident is classed as unavoidable.

March 21—HOWARD ELLIOTT, American, electric machine runner, length of experience not known, age 31 years, married, two children, employed by the Blue Bird Mines, Inc., Jefferson County, was severely injured March 17 and died on the above date. Deceased and partner were moving an electric shearing machine from face of upper slope to a room by means of coupling it to the rear end of two empty cars and drawn by the hoisting engine. Partner was riding on front end of the machine when about 75 feet from the face the haulage rope broke. When this occurred the empty cars and machine started backwards and down the slope, throwing deceased off and he was caught by the cars as they went by, injuring him so severely that he did not recover. The slope is driven on a $33\frac{1}{3}\%$ pitch. The haulage rope was of steel wire and upon examination showed many broken wires in strand due to wear. There was no drag on the machine. The accident was due to using a worn out rope, the omission of a drag being used when hauling the machine up the slope and the deceased riding on it. The responsibility is charged jointly to the management and deceased.

April 1—HERBERT SHAW, assistant mine foreman, experience not given, age 52 years, married, five children, employed by the Colorado Fuel & Iron Co. at the Frederick mine, Las Animas County, was injured by being caught between car and rib on March 24, 1931, and died on the above date. Deceased was traveling with the regular man-trip of 12 cars on the main haulage road to the 18th west where 10 empty cars were left standing on the main haulage road from the previous day. In order to pass, these cars had to be switched, so deceased walked ahead to the front of the empty cars and boarded same apparently to switch them when in some manner the front car became derailed about 30 feet from the switch and came in contact with the right hand rib of the entry and he was flung between it and the car and injured so severely that he died on the above date. Deceased stated that he did not know what caused the car to derail. The track was found to be in good condition, clear of obstructions and there was sufficient clearance on both sides of the track. The accident was a mishap and is classed as unavoidable.

April 14—JULE GILLETT, American, nipper, experience not given, age 39 years, married, two children, employed by the Calu-

met Fuel Co. at the Calumet No. 2 mine, Huerfano County, was injured on the 11th of April by being caught between haulage motor and door frame and died on the above date. There is a door on the fourth north entry inby dip entries, and parting switch starts three feet inby door. The motor went into this parting to pick up two loaded cars to complete the trip and had pulled in on the empty track alongside the loads, placed a tie against front end of motor and rear end of loads and gave them a shove so that they would run past the parting switch. Deceased then followed the loads and called to the motorman to come on and upon arriving at the door found that the rear end of the last car had it blocked so that he could not get through and before he could step back in the clear the motor caught him against the door frame and crushed him, causing injuries from which he died. There is not sufficient clearance between top of motor and roof for the motorman to see ahead. The company is held responsible for this accident on account of improper and dangerous method used in switching these cars. A recommendation has been made that all switching must be done with the cars securely coupled to the motor so that they can be kept under control at all times.

May 16—MANUEL GOMEZ, Mexican, pick miner, experience 21 years, age 48 years, widower, no children, employed by the Torrid Coal Co., Torrid mine, Huerfano County, was killed by a fall of draw slate. Deceased was working single in a room and there were no eyewitnesses to the accident. This room has about 18 inches of draw rock over the coal, making a bad roof condition. The place was well timbered, but while digging coal at the face an invisible slip in the draw rock was uncovered and the rock, being relieved, swung out the roadhead prop and fell on deceased, killing him instantly. The accident was unforeseen and is classed as unavoidable.

July 2—THERON GARDNER, American, coal dumper, experience 20 years, at coke plant, age 51 years, married, two children, employed by the American Smelting & Refining Co. at the washer of the Cokedale Coke Plant, Las Animas County, was injured May 19 by having his left arm caught between belt and pulley of coal crusher and died on the above date from the effects of same. According to statement of deceased, he was attempting to remove some fine coal dust which had accumulated on the pulley driving the crusher for the washer while the machinery was in motion. In some manner he slipped and his hand fell on the belt, carrying his arm over the pulley to the framework, crushing his arm badly. It was an error of judgment to attempt cleaning the pulley while the machinery was in motion and it was also against the rules of the plant.

July 2—DAVID JACKSON, American, fire boss, experience 35 years, age 51, married, two children, employed by the Bear Canon Coal Co. at the Bear Canon No. 6 mine, Las Animas County,

came to his death by the exploding of detonators which he was carrying loose in his pocket and which was started off by a local gas explosion. Deceased was acting as shotfirer at the time of the accident and had tamped and lit two shots in room No. 11, then went to room No. 13 and lit one shot there and was on his way out when the shots in No. 11 room went off. One of them was a blown-out shot, which undoubtedly set off an accumulation of gas in the high point gob side of room No. 11 causing a local explosion and exploded the detonators in deceased's pocket.

RECOMMENDATIONS:

Gentlemen:

The following important recommendations, made by Chief Inspector James Dalrymple, following investigation of explosion at the Bear Canon No. 6 mine on August 12, 1931. These recommendations to take the place of former recommendations.

(1) That all stoppings between main intake and main return, in all cross entries over 500 feet in length from which rooms are worked and in all cross entries from which panel entries are worked, be built of concrete or of stone, brick or tile laid in mortar cut into the sides, top and bottom. This includes all such places already driven as well as such places driven in the future. In ascertaining the 500 feet, part of it may be cross entry and part panel entry. See Section 136 of the Coal Mining Laws.

(2) That all connections between intakes and returns not being used for haulage be closed by permanent stoppings with a small door in stopping where required and in all such connections used for haulage by substantial double doors.

(3) That all cross cuts, except the inside one, be closed. This includes room cross cuts, and 60 feet shall be the maximum distance between all cross cuts.

(4) That all holes drilled must not be less than 12 inches from rib.

(5) That on account of the limited number of shots fired, shooting may be done by fire boss in the morning before making fire boss morning examination. This may be stopped at any time because of inadequate ventilation or material increase in number of shots to be fired by the Deputy State Coal Mine Inspector.

(6) That fuse igniters may be used to fire shots, subject to cancellation by the Deputy Inspector for cause.

(7) That all flame safety lamps must be magnetically locked when in use underground and when testing for gas normal flame shall not be allowed.

(8) That all weekly air readings must include readings taken in last cross cut in each separate split or section and properly recorded in book kept for that purpose.

(9) That fire boss examinations of mine and recording of same shall be done according to Sections 63 and 65 of the Coal Mining Laws.

NOTE: Recommendation No. 6 prohibits all other means of firing shots except by electric batteries.

Recommended and approved by

JAMES DALRYMPLE,
State Inspector of Coal Mines.

August 12—LOUIS LÉLOGE, French, motor nipper, experience four years, age 27 years, single, employed by the Temple Fuel Co. at the Brodhead No. 9 mine, Las Animas County, was injured on August 11 by being caught between pit cars and rib and died from the injuries sustained on the above date. According to evidence given by the motorman, deceased and partner had loaded 20 cars and backed 10 cars into the 11th south parting, which has a grade of 1% for a distance of 120 feet then dipping 4½% for a considerable distance into the parting. He also stated that he backed the motor into the trip to take same to the main slope. He saw deceased between third and fourth cars. When coupled the trip to his five-ton motor it could not pull the load and the trip backed down the 4½% grade with deceased between the cars. Deceased stated that he struck his head against the roof, knocking him off the trip and he fell between the rib and cars, crushing him fatally. The distance between rail and rib where he was found is three feet two inches. The motorman said that he had been instructed by the mine foreman not to switch loaded cars into the 11th south entry on account of this grade but to switch into the 13th north entry. This being true, the motorman disobeyed instructions and is partly responsible for the accident.

August 12—ERNEST FRAZY, Italian, machine miner, experience 33 years, age 53 years, married, one child, employed by the Colorado Fuel & Iron Co. at the Robinson No. 4 mine, Huerfano County, was injured on August 11 by a fall of top rock and died from its effects on the above date. Deceased and his partner were working in a room, they had finished their lunch and before starting to work again deceased tested the roof and found some loose top rock eight feet from the face between rib and roadway. He used a wedge to take this down and then tested the roof again and told his partner that it was "solid." He began to work at the face, trimming it down to square up. In doing this he released an invisible slip along the coal face which allowed rock to fall on him, causing death 14 hours later. The mine foreman had visited the place at 8:30 a. m. and accident occurred at 12:30 p. m. It was unforeseen and is classed as unavoidable.

August 24—STEVE SEPCHIEFF, Bulgarian, pick miner, experience 15 years, age 35 years, single, employed by the Castle Rock Coal Co. at the Castle Rock mine, Gunnison County, was

injured by falling on a burning slack dump on August 19 and died from the effects of same on the above date. Deceased was dumping a car of slack coal on the outside of the mine on a dump when the trestle on which he was standing collapsed, dropping him on the burning coal dump. He managed to crawl off the dump and, as there was no assistance at hand, drove his automobile four miles for medical care. He was taken to the Salida hospital, where he died. Very poor judgment was shown in building a trestle over a slack dump subject to combustion, also the dump had been burning for some time and no doubt had weakened the supports of the trestle. Deceased should have known that the trestle was not safe. Recommended that a track be laid along the hillside on the solid ground and the slack dumped from this track. A trestle then will not be necessary. Also no slack be dumped within 300 feet from the mine opening.

September 18—JOHN B. VERCELLONO, Italian, pick miner, experience 25 years, age 62 years, married, seven children (all grown), employed by the Rocky Mountain Fuel Co. at the Industrial mine, Boulder County, was injured August 14 by a fall of pot rock from the roof and died on the above date. Deceased was working helping to load coal into a pit car when the pot rock fell from roof and struck him, injuring him so seriously that he had to be taken to a hospital, where he died. The mine foreman visited the place just one hour prior to the accident. Deceased was a good, practical miner who always kept his place in good condition. The accident was unforeseen and is classed as unavoidable.

October 3—ANDREAS HERNANDEZ, Mexican, pick miner, experience four years, age 23 years, married, no children, employed by the Victor-American Fuel Co. at the Delagua mine, Las Animas County, was injured September 4 by a fall of rock and died on the above date. Deceased and his partner were working on a chain pillar and he accidentally struck a prop with his shovel, knocking it out and released a rock which fell on his back. The place was well timbered and the accident was due to a misadventure. The place had been visited by the fire boss three hours prior to the accident.

October 6—ARTHUR McSHANE, American, machine miner, experience 40 years, age 55 years, single, employed by the Bluff Springs Leasing Co. at the Bluff Springs No. 2 mine, Fremont County, was injured September 29, 1931, by a fall of top rock and died on the above date. Deceased was working on the face of room about 10 feet left of roadway when an invisible slip gave way, catching him and resulting in death eight days later. The slip fell between two props set four feet apart. The accident is classed as unforeseen and unavoidable. The present roof consists of rotten slate and is full of slips. A new timbering agreement is drawn up to take care of this condition. The mine foreman had visited the place about 30 minutes prior to the accident.

October 12—FOSTER RANSON, JR., American, machine miner, experience two years, age 23 years, single, employed by the Bluff Springs Leasing Co. at the Bluff Springs No. 2 mine, Fremont County, was killed by a fall of top rock. Deceased was working on face of room about 12 feet left of roadway turning back coal when an invisible slip gave way, catching him and causing instant death. The place was well timbered and the accident is classed as unavoidable. The place had been visited by the mine foreman about 15 minutes prior to the accident.

October 22—GEORGE NANKOFF, Bulgarian, machine miner, experience 16 years, age 40 years, employed by the Hayden Coal Co. at the Hayden No. 3 mine, Routt County, was caught between pit car and prop and died three hours later from the effects of the injury. A partner of deceased had pulled, with a hoist, a trip of three empty and one loaded cars. When the trip reached the entry where deceased was standing he stepped on the bumper of the first empty car while it was in motion and in some way was caught between the car and prop. This accident could have been avoided had the rule of having $2\frac{1}{2}$ feet clearance on the mechanical haulage been complied with. As it was, the clearance at the time of accident was only one foot between rail and prop and only four inches between the side of car and prop. The management has agreed to widen the clearance as prescribed by law as soon as it is possible. The responsibility of the accident is charged to the neglect of the company.

October 23—SAM DIGACOMO, age 48 years, LORENZO DIGACOMO, age 16 years, and FRANK LAPENNA, age 26 years, were killed by a gas explosion at the Old Ferrell mine, located in Las Animas County, on the above date. The deceased, with Dan Scappucci and Nick Spagnoli, had entered the Old Ferrell mine, which had been abandoned for some time, with open lights. Dan Scappucci urged his fellow men not to proceed into this gas-filled mine, he going out, the others had advanced to a point about 700 feet from the mine portal, where the explosion occurred, killing three instantly and badly burning Nick Spagnoli, who was rescued and taken to the hospital. As these men were trespassers and had no right to enter a mine which was properly blocked off, these deaths are not charged to the industry.

November 9—NORFIO GALLINA, Italian, pick miner, experience 35 years, age 56, married, four children, employed by George Fruth at the New Fruth mine, Huerfano County, was instantly killed by a runaway mine car. Deceased and his partner were working night shift sinking the main slope, which is about 250 feet in length and pitches about 30%. Deceased was drilling a hole on the left rib about 10 feet back from the face when an empty car got beyond control of the men on the tibble, ran down the slope and struck him. The rope rider and hoistman handle all the haulage and they had been in the habit of dumping the car,

then pushing it back to the knuckle and spragging it there before attaching the cable. It was raining at the time of accident and the rails were wet, the car was pushed to the knuckle and spragged but, the rails being wet, the sprag did not hold it and it went over the knuckle and ran into the mine. The management is held responsible for this accident as there was no safety device of any kind installed to prevent cars from running away. Contributing cause was the unsafe method of handling cars on the tippel. Both haulage men are young and inexperienced.

LIST OF FATAL ACCIDENTS WHICH OCCURRED IN THE COAL MINES OF COLORADO DURING THE YEAR 1932

January 15—CARL E. GABALDON, Spanish, machine runner, experience 18 years, age 38 years, married, six children, employed by the Calumet Fuel Co., Calumet No. 1 mine, Huerfano County, was killed by a fall of coal and draw slate. The accident occurred in room 8 off eighth south entry, while deceased was working with W. J. Temple, a machine helper. This room had not been working for seven years prior to accident and while making the first mining a fall of coal and draw slate took place, principally coal weighing about two tons. The machine was idle when the fall took place from the face and W. J. Temple testified that both deceased and himself tested the face by sounding it with a pick before starting to undermine and considered it safe and that the fall gave no warning. Mr. Perry Storey, a coal loader, testified that he cleaned the place up and took down all loose coal and rock just before the machine started cutting and he considered the place safe. Both of the above witnesses considered the accident as unavoidable. The place was visited by the mine foreman at 8:00 a. m. and the accident occurred at 1:00 p. m. It is my opinion that during the seven years which the place had been idle that sufficient weight or pressure had caused the coal to crack beyond the face, probably in such a large piece that it was not detectable by sounding with a pick, and that the accident was therefore unavoidable.

February 1—LOUIS SAKRADIA, Siberian, machine miner, experience 15 years, age 37 years, married, one child, employed by the Boulder Valley Coal Co. at the Boulder Valley mine, Weld County, was crushed under a loaded pit car on January 30, 1932, and died on the above date. Deceased and two partners were extracting a chain pillar and remaining blocks, cutting and hauling their own coal. The working face at point of accident is 25 feet deep, driven in the block and the grade is about 2% in favor of the loaded car in the working place and level on the main entry. Deceased was hauling the coal from the face with a mule, riding the front end standing on the bumpers, with one hand on the bumpers and holding on to the car with the other. When about 45 feet outby on the entry some mishap occurred and deceased either fell or was thrown off the car, landing in the center of the track, where

the car ran over him, causing injuries which resulted in his death about two days later at the Longmont Hospital. At the point of accident there was sufficient height above the loaded car and about 2½ feet unobstructed clearance on both sides of the car. One sprag was in the car wheel and the deceased was an experienced driver. The accident was a misadventure for which no one could be held responsible.

February 6—SOLAN OTIS CARTER, American, pick miner, experience six years, age not given, married, one child, employed by the Delisa Canon Coal Co. at the Cuckoo mine, Fremont County, was injured at the roadhead by a fall of rock on January 21 and died on the above date. A brushing shot had been fired in the roof the night before the accident and the debris was cleared up and used as building material for side walls of road. The rock that fell on deceased was made in the roof by the brushing shot and came down while he was loading a car with coal. The mine foreman and another man were within a few feet of deceased and testified that the rock fell without warning and that the roof had been tested about half an hour before it fell and was considered safe. Three weeks having passed between date of accident and investigation and the working place had advanced 50 feet, so there was no way to determine what the condition of the roof was at that time. A well-defined smooth slip from which the rock fell is still in evidence. This would uphold the testimony that the rock fell without giving any warning. The accident is classed as unforeseen and was unavoidable.

February 10—ARCHIE GOODHEAD, American, mule driver, experience 18 years, age 42 years, married, two children, employed by John D. Cribbs at the Rockvale No. 2 mine, Fremont County, came to his death by falling in front of a loaded car. Deceased was an experienced mule driver and was employed in such capacity in the ninth south entry with several other drivers. The inside drivers always stopped on their way out at a point inside of third dip until the third dip drivers came in. There is a trap door just inside of this with a door attendant who used to whistle to the inside drivers when the third dip drivers had passed in. Deceased, with mule and two loaded cars, had waited at the regular stopping place and the door attendant whistled twice to deceased to start out with his trip and, getting no answer, he went to see what was wrong and found the front loaded car derailed and deceased under it dead. The drivers use what is known as the shafts and guns in place of tail chains, the gun is fastened to the shafts at one end and the other end is fastened to the drawbar of the car. Both connections are made by drop bolts. Four witnesses testified that when they arrived at the place of accident they found the front end of gun disconnected from shaft. What caused this break is not known. It is probable that deceased, in riding front end of trip, had hold of the car with one hand and held the gun with the other and on which he was leaning and that when the disconnection occurred, the

gun dropped down far enough to cause him to lose his balance and fall in front of the car, which ran over him. This was a peculiar mishap and for which no one could be held responsible.

February 29—ANGELO MICHELETTI, Italian, pick miner, experience 25 years, age 54 years, married, no children, employed by the Torrid Coal Co. at the Torrid mine, Huerfano County, was killed by a fall of rock. Deceased and partner were working in a room and had put in a short mining and were about to take down the coal when a pot rock from the roof gave way from a slip close to face of coal. The roof had been tested a few minutes prior to accident and found safe. The last prop set by deceased was about three from the face of coal and on the outside edge of slip of rock and when rock gave way from roof it broke eight inches over the face of the coal. The place was well timbered and the accident is classed as unavoidable.

March 9—ELOY ROMERO, Mexican, pick miner, experience 12 years, age 26 years, married, two children, employed by the Temple Fuel Co. at the Brodhead No. 9 mine, Las Animas County, was killed by fall of rock. Deceased was working on the right side of a room on the butts, which was about 10 feet from room face, and was loading coal on the left side and when the car was about one-third full a large rock, from between two slips paralleling each other, fell between the props. The room was driven west and the slips running north and south, this making the roof very dangerous, which is also heavily saturated with moisture. The place was well timbered, carrying two props on each side of place and two roadhead props and the average distance between props was three feet. Deceased was working alone and was found dead under the rock. Mine foreman had visited the place two hours prior to the accident. This accident was unforeseen and is classed as unavoidable.

March 19—JAMES AVILA, Mexican, machine miner, experience two years, age 21 years, single, employed by the Boulder Valley Coal Co. at the Boulder Valley mine, Weld County, was killed by a fall of rock. Deceased and his partner (his father) were driving a break-through in a room pillar. The place was driven about eight feet wide and six feet high to the rock roof, and timbered with cross bars with a leg under each cross bar, which were three feet apart. They were cleaning up the place preparing it for the electric machine so that the cutting could be done. The temporary roadhead prop had been replaced with a cross bar about 3½ feet back from the face and while deceased was picking down a small slab of coal, a rock gave way from a well-defined but invisible slip which ran along the inside edge and parallel with the cross bar. It fell on deceased and killed him instantly. The mine foreman had visited the place an hour before the accident and tested the roof and did not detect any looseness in rock. Partner stated he, too, had tested the roof a few minutes before it fell and it sounded solid. The accident was unforeseen and is classed as unavoidable.

March 23—JOSEPH NEWELL, American, pick miner, experience 12 years, age 28 years, married, one child, employed by John D. Cribbs at the Rockvale No. 2 mine, Fremont County, was injured by a fall of coal on the 22nd of March and died the following day. A shot had been fired by the shot-firer about 12 feet from the roadhead. Deceased returned to the face and after attempting to pull the tail end of the shot down and not succeeding he proceeded to load a car and while doing this the top coal broke loose, striking him and causing such injuries that he died as above stated. The place had been visited by the mine foreman at 8:00 a. m. The accident is classed as unavoidable.

April 16—JOHN McKENNA, Scotch, machine miner, experience 38 years, age 46 years, married, one child, employed by the Victor-American Fuel Co. at the Chandler mine, Fremont County, came to his death by electrocution. The accident took place in a back entry which made considerable water, requiring pumping three times a day. The company pumped the water in the morning before the men entered, but the rest of the pumping was done by the miners during the day. There were no eyewitnesses to the accident. Apparently, deceased started the pump and in throwing the lever of starting box forward he slipped or lost his balance and fell over the pump between the motor and starting box. His right hand was on the brushes and his left hand on the bottom in front of him, grasping a piece of wood, and his body was wedged in between starting box and motor. The clothes and shoes he wore were wringing wet, the ground surrounding the pump was dry. The current is DC, 225 volts, the rails being the return and deceased may have been standing on rail when starting the pump, which had the result of intensifying the shock. Had the lever on the starting box been arranged to pull back from the pump instead of forward to start it the accident in all probability would not have happened. The management agreed to change all their pumps with the above suggestion. No one is held responsible for the accident.

April 21—ROBERT M. SMITH, American, motorman, experience 31 years, age 47 years, married, one child, employed by the Temple Fuel Co. at the Brodhead No. 9 mine, Las Animas County, was killed by striking his head against a cross bar. Deceased left an entry with a light motor to get some loaded pit cars from stumps and pillars in another entry and bring them to the main parting. About 15 minutes later he was found dead between rib and motor. The entry had a grade of $1\frac{1}{2}\%$ to the point where deceased was found. It appeared that he had coasted the motor for that distance, as there was no power on motor. Seventeen feet from where the body was found the low cross bar which apparently caught deceased is but three feet six inches from rail to cross bar, which leaves but four inches of clearance for motor. This entry is low and has never been brushed. In general, the cross bars are about four feet above rail. It is a bad roof and the management is double shifting the places so as to get out of this district as soon as pos-

sible. Upon examination of the low cross bar it was disclosed that someone had come in contact with it, it being two or three inches lower than the balance of cross bars alongside of it. It was recommended that all cross bars be removed wherever possible and that the stumps and pillars be removed as soon as possible by double shifting. Accident is classed as unavoidable.

May 13—JAMES DARR, American, pick miner, experience 30 years, age 47 years, married, three children, lessee of the Happy Canon mine, Montrose County, and—

WILLIAM DARR (nephew of above), American, pick miner, experience one year, age 24 years, single, employed by above, came to their death by "carbon monoxide poisoning" caused by a gasoline engine which was installed inside of the mine. Darr and his nephew opened the Happy Canon mine in March, 1931, and drove a rock slope about 250 feet on a pitch of 20%, where the coal seam was found and about 30 tons of coal were taken out. They encountered water in such quantities that they had to install a pump to handle this flow and, as no other power was available, a gasoline-driven engine was installed and as they advanced the pump was moved from the outside of the mine into the slope and was kept advancing further inside the slope. On May 13 the engine had been shut off and the men proceeded to leave the mine, when they were overcome by the fumes of the gas. Early in the morning a boy passing the mine heard the men talking and the engine going. Nothing more was heard from them until about 5:00 p. m., when the elder man's son, who was with his Sunday School class picnic, arrived at the mine and entered the slope and when in about 175 feet found the bodies of the two men. Evidently they had been dead several hours, as their clothes were soaked from the water dripping from the roof. About four inches of gasoline were found in the tank of the engine and it had been stopped by deceased, probably realizing that the air was getting bad, and on their way out they were overcome by the carbon monoxide gas from the exhaust of the engine. This mine was operated unlawfully and without the knowledge of the Inspection Department. Had the lessee notified the department of the mine, as required by law, the District Inspector would not have allowed the gasoline engine underground not permitted a single tunnel of 250 feet in length to be driven without furnishing adequate ventilation. Had the law been complied with, in all probability this accident would not have happened.

July 4—ANDY KLINE, Austrian, timberman, experience 20 years, age 46 years, single, employed by the Leyden Lignite Co. at the Leyden No. 2 mine, Jefferson County, was injured on June 13 by a fall of rock and coal and died on the above date. Deceased, Glavack and two other men were cleaning up and taking down loose roof on the third panel off second north at No. 4 room neck. Glavack stated deceased was standing on the entry inside of room neck and must have left there and gone into the room neck while

Glavack was taking down loose roof with his back to deceased when he (Glavack) heard a scream. The other two men said they were scared that they did not know what had happened or how. Deceased told the superintendent that he was trying to take down a piece of rock and, failing, he started to pick down the coal supporting the rock when it fell without any warning. The place where the accident occurred had caved and was inaccessible; this, with the conflicting statements made, renders it impossible to place the responsibility.

August 1—AMERICO POLETTI, American, pick miner, experience three years, age 19 years, single, employed by Mattivi & Sons at the Bunker Hill mine, Huerfano County, was killed by a fall of rock. Deceased and his partner had just finished loading a car when a rock fell from an invisible slip in the roof, striking him and killing him instantly. The slip paralleling the entry broke off at the face of the coal and dislodged a roadhead prop which was set about four feet from the face. The roof had been tested and found in good condition. The mine foreman had visited the place 30 minutes prior to accident. The roof showed no indication of being dangerous because of slips while driving entry, which depended entirely upon roadhead props. It is recommended that entry be cross-barred every three feet and kept within three feet of face. Accident is classed as unforeseen and unavoidable.

August 11—THOMAS M. TSIKIRIS, Greek, machine miner, experience 17 years, age 41 years, married, no children, employed by the Clayton Coal Co. at the Clayton mine, Weld County, was caught between car and timber and died two days later. Deceased and his partner had loaded two cars and the partner went out by about 100 feet from the face to a point where the grade of the haulage road changed from level to about $1\frac{1}{2}\%$ in favor of the loads to put in a couple of sprags to slow up the two-car trip when it came out. However, when deceased came to within eight feet from where his partner was waiting he stopped the mule and stepped from the front end of the trip to the side and was caught between the car and leg under one of the cross bars and was severely injured. The deceased was an experienced driver and there was sufficient clearance on the other side of the car and just ahead of where he stepped out. The accident was a misadventure and no one can be held responsible for it.

August 27—W. Y. KING, Korean, miner, experience $6\frac{1}{2}$ years, age 41 years, widower, one child, employed by the Hayden Coal Co. at the Hayden No. 3 mine, Routt County, was instantly killed by a fall of top coal. Deceased was working at face of room picking down loose coal, while his partner was dropping a loaded car out to the room neck. His partner heard a fall and went back and found King under a fall of coal. There is about 18 inches of top coal from room neck to the face of room, which was exceptionally well timbered with one line of props set $5\frac{1}{2}$ feet from the

face. An examination showed the roof to be solid, but the top coal, after falling, exposed a slip just inside the line of props. Mine foreman visited the place at 2:30 p. m. on August 26 and accident occurred at 11:30 a. m. of above date. The coal at this point is subject to bumps and probably this was the cause of the accident.

September 8—JOE ROMANO, American, machine loader, experience nine years, age 25 years, single, employed by the Victor-American Fuel Co. at the Chandler mine, Fremont County, came to his death by falling down a shaft. Deceased and two other men were being hoisted through the old air shaft which was used to hoist men so there would be no interference with the regular shaft hoisting coal during working hours. This shaft is equipped with a steam hoist and indicator consisting of a stationary bar with an arrow near each end and a traveling bar with one arrow. When this arrow reaches the stationary ones, it indicated that the cage was at rest on the top landing or at the bottom of shaft. The arrow indicating the top landing had been moved nearly one inch, so that before the traveling arrow reached the stationary one, the cage was above the landing. Phillip Jirout and deceased jumped from the cage and it is assumed that deceased in jumping struck something which sent him back down the shaft. His body was found at shaft bottom, 480 feet below. Frank Sabatino stayed on the cage. Neither Jirout nor Sabatino were injured. To prevent a repetition of similar accidents the arrows were riveted to the stationary bar. Men had been hoisted from this shaft two days previous to accident and the arrows were in place. No one knows what moved the arrow. Accident is classed as unavoidable.

September 10—GEORGE MUDRACK, American, driver, experience 10 years, age 27 years, married, one child, employed by the Consolidated Coal & Coke Co. at the Baum mine, Weld County, was caught between a loaded car and rib and was crushed so severely that he died a few hours later. There was no eyewitness to the accident, but at the time there were 11 loaded cars all coupled together on the parting, the last car extending over the switch of a room. There was another car in this room which was needed to complete the full motor trip. The deceased started to clear the switch by hauling the last car from the trip inby but neglected to uncouple car and before he realized the mistake the whole trip was running back on the entry. He cut the mule loose and attempted to stop the trip by bracing himself against the corner of the car and while doing this the front pair of wheels took the switch and the rear wheels of the car took the straight track, wrecking it, and catching deceased between the corner of the car and room neck, injuring him so severely that he died as above stated. He was an experienced driver and the accident was due to a mishap for which no one can be held responsible.

September 22—FELIPE SAMUNDIO, Mexican, pick miner, experience 14 years, age 44 years, single, employed by the Victor-

American Fuel Co. at the Pinnacle mine, Routt County, was injured on the 17th of September by coal bumping off the rib and died on the above date. At the time of the accident deceased was standing between two loaded cars and rib of room. He was busy taking down some loose coal off the rib when a bump occurred, throwing coal out with such force that several pieces struck his face, breaking his jawbones and fracturing his frontal skull. The bump being unforeseen the accident is classed as unavoidable.

September 30—TONY SLOGAR, Croatian, pick miner, experience 22 years, age 45 years, married, 11 children, employed by the Horace Anthracite Co. at the Horace mine, Gunnison County, was killed by a fall of rock. The coal seam at this mine is operated by longwall system and it is necessary to brush the roof for a roadway. Deceased and his partner had prepared for a brushing shot the afternoon of the day before the accident, which the shot-firer fired later. On arriving at their working place the following morning they tested the roof and took down loose coal and then proceeded to gob the rock from the brushing shot when a large rock gave way from the right rib, falling on deceased, killing him instantly. This rock parted from the roof and side by an invisible slip swinging out the breaker timbers on the right side. The place was well timbered and had been visited by the mine foreman about two hours prior to the accident. The accident was unforeseen and is classed as unavoidable.

October 4—W. E. WYATT, American, machine helper, experience 13 years, age 33 years, single, employed by the Boulder Valley Coal Co. at the Boulder Valley mine, Weld County, came to his death by being run down by haulage motor. Deceased and his partner started out with a machine from the face of east entry, the motorman was at the face of the main east waiting for the loaders to load a car; when this was finished he started to haul the car out to spot it in the first north and when passing a cross cut about 60 feet inby of the second north, one of the loaders here cautioned him to be careful of the machine men at curtain between first and second north. He immediately slowed down the motor, intending to stop before reaching the curtain, but in the next few seconds he saw deceased raise and lower his light a couple of times and retreat through the curtain. Believing this to be a signal that all was clear, he placed the controller on the second point, advancing through the curtain onto the deceased. The accident was a misadventure due to the curtain shutting off the vision of the deceased and motorman at a critical time, the possibility of the motorman misconstrued the deceased moving a light for a signal and the deceased misjudging the time it would take to remove the cable of the machine before motor arrived.

Recommended: That whenever a machine is moved along a haulage entry that the machine men see that the motor is stopped until the machine and cable are placed in the clear; also that the

motorman ascertain for himself that the road is clear before starting the motor and that curtains be eliminated wherever possible or where an over-cast or under-cast is practical. The accident is classed as unavoidable.

October 6—NELLO CUNICO, Italian, assistant mine foreman, experience 14 years, age 32 years, married, four children, employed by the Colorado Fuel & Iron Co. at the Kebler No. 2 mine, Huerfano County, was injured by flying coal on October 20 and died on above date. Deceased with mine foreman, McAllister, and three other men were engaged in shooting down top on main slope in order to get a more uniform grade in haulage. At the time of the accident Cunico and McAllister were the only men in the mine. Four shots were fired and Cunico used the electric battery to fire them. About 55 feet of shooting wire was used so that was as far as he could get away from the shots before firing them. Delay igniters were used so that deceased reached McAllister, about 80 feet from shots, before the shots went off and before shots went off he complained of having been struck by something, probably a flying rock from the shots. The slope at this point is above the coal so that there were no cross cuts or manholes to get into while shots were being fired. Under such conditions 55 feet of shooting wire is not enough with only the projections on the sides of the slope as their protection. If 150 feet of shooting wire had been used, the accident might have been avoided.

October 14—W. L. HILL, American, machine miner, experience 14 years, age 37 years, married, six children, employed by the Vickers Coal Co. at the Kenneth mine, Las Animas County, was crushed between loaded trip and rib. Deceased and several other men got on a loaded trip at the lower parting of the sixth dips. They rode a distance of seven or eight hundred feet, at which point the manway intersects the dip. In jumping off the trip at this point deceased struck the bell line and was knocked back in between the cars, being dragged and rolled a distance of about 30 feet, sustaining injuries that he died about eight hours later. Deceased was responsible for the accident by riding a trip which is prohibited from being used as a mantrip.

November 7—GEORGE AMEN, German, rancher, no underground experience, age 58 years, married, no children, employed by no one (getting coal for himself), at the Byrnes mine, Arapahoe County, was killed by a fall of debris. This mine was supposed to be operated as a strip pit but deceased was undermining coal from under the roof when about five tons of soapstone fell on him. No timbers or any other kind of supports had been set to uphold the roof. The accident was the result of dangerous practices and lack of experience. No compensation insurance was carried at this mine for those employed.

November 15—ARTHUR H. WEAVER, teamster, some underground experience, age 27 years, single, employed by the Man-

cos Coal & Fuel Co. at the Mancos mine, Montezuma County, was killed by a fall of rock. Deceased was employed as a teamster and, finding there was not enough coal in the chute for a load, entered the mine for a visit with a miner. He sat down on the roadhead and talked with one of the miners who was working at the face when a large rock, released by a V-slip in the roof, fell on him, killing him instantly. The miner working at this place stated that he had tested the roof about 10 minutes previous to the accident, but as he had very little experience in coal mining his judgment as to the condition of the roof was probably as faulty as the roof at this place, which is of a soft, muddy shale and full of cross slips. There was no roadhead prop set in this place. Had there been, probably the accident would have been avoided; otherwise the place was well timbered. The company is to blame for this accident, through a lack of experienced supervision and allowing anyone not employed underground to enter the mine. Recommended that all working places be cross barred and that a roadhead or safety prop be used in all working places.

November 16—GEORGE FOOS, American, driver, experience 14 years, age 28 years, married, three children, employed by the Louisville-Lafayette Coal Co. at the Hi-Way mine, Boulder County, came to his death by being caught between a loaded car and cross bar. A timberman was engaged in putting up a cross bar when deceased came with his mule to pull a loaded car out of the room. As the cross bar was not in place, deceased helped place it. On one side it was hitched in the coal and on the other end a slab was pushed under it for temporary support until deceased had taken out a loaded car of coal. On the way in the mule did not touch the bar, but on coming out with a loaded car he knocked it down, dislodging the slab and allowing the bar to fall across the roadway with one end in the hitch and the other on the floor. Deceased was on the front end of the car and on the side where the bar was in the hitch and he was caught and so badly crushed that he died shortly after the accident. Accident might have been avoided if sufficient clearance had been allowed so that the mule would not rub on timbers, or if timberman had been allowed to finish the job before permitting deceased to pull the car out of the room. Deceased came to his death through no fault of his own and the accident is classed as unavoidable.

December 20—ROY MITCHELL, American, driver, experience 27 years, age 40, married, two children, employed by the Calumet Fuel Co. at the Calumet No. 1 mine, Huerfano County, was killed by a local gas explosion. Deceased was employed as boss driver on the morning of the explosion and was instructed to go to the fourth dip hoist and drop a trip of empties down to the fourth dip for the men to load. In some manner an accumulation of gas had gathered at this hoist and was ignited by an arc caused by a line switch being thrown or from the controller or motor and extended down the dips for a distance of 1,000 feet blowing out

stoppings and extending about the same distance out the fifth east and where the stoppings were blown out between the main and back entries. The stoppings in the sealed area were not injured. This sealed area is in the 8th, 9th, 10th and 11th North Raise Entries off the fifth east. This area has been sealed for five years. It is possible though not probable, that a cave of sufficient size took place in the sealed area to force the gas through the stoppings. There is a pipe which leads from the top of the stoppings in the 11th north which is equipped with a valve that is supposed to be kept chained and locked open. This pipe passes under the haulage tracks of the main east fifth and and emerges in the return entry where it is equipped with a series of elbows and nipples, rising vertically two feet and spreading horizontally 18 inches and then drop 18 inches. This open end of the pipe is supposed to be kept under one-half inch of water and is called a water seal. In the lower elbow there is a plug to drain the pipe as water collects in it, evidently from condensation from the warm moist air and gases draining from the sealed area. If this plug is not removed regularly it would allow an accumulation of water and cause pressure to build up in the sealed area forcing the gas to bleed out around the stoppings. There is no doubt the gas came from the sealed area and that either the closing of the valve or neglecting to drain the pipe caused the accumulation. On the day of the accident the mine was idle, but about 67 men were busy loading empties. With deceased was Thomas Somsy who was severely burned. That the explosion did not extend further into the mine but was localized as above stated may be attributed to Rock Dusting of the haulageways. Recommended: (1) That an over-cast be built at inby parting the fifth east so that positive ventilation will be assured over the hoist. (2) That elbow and nipple connections be taken off the drainage pipe in the back entry to insure positive drainage.

December 23—JAMES MORRIS, American, driver, experience 35 years, age 50 years, single, employed by the Louisville-Lafayette Coal Co. at the Hi-Way mine, Boulder County, was killed by being dragged under a loaded car. Deceased was taking a loaded car of coal from a chain pillar to the main parting and was on the front end of the car with one foot on the bumper and the other on the tail chain. He had gone about 35 feet when a slight grade in favor of the load, the mule kicked him in the breast causing him to fall in front of loaded car and dragging him under for a distance of 18 feet before the mule could be stopped by one of the miners and caused injuries which caused his death ten hours later. At the point where accident occurred there was ample clearance on both as to height and width, the clearance between bottom of car and top of tie only 11 inches. Deceased was an experienced driver and came to his death through no cause of his own and is therefore classed as a mishap.

December 24—PAUL JACOVETTA, Italian, machine miner, experience 20 years, age 51 years, married, three children, em-

ployed by the W. E. Russell Coal Co. at the Russell mine, Weld County, was killed by a battery haulage motor. The accident happened on the main haulage road as deceased and three other men were traveling towards the hoisting shaft on their way out from their working places. They heard the electric haulage motor coming from the inside with the last trip of the day and stepped into a shelter hole and let the trip go by and as the last car passed by, deceased stepped out onto the track and was struck by a battery motor which was following about 20 or 30 feet behind the coal trip. The deceased neither heard nor saw the motor, and the motorman although reversing the motor was unable to stop it in time to prevent the accident. The other men saw the headlight shining in time to save themselves, but did not have time to warn deceased. The accident was due to a misadventure and no one can be held responsible for it. Recommended: (1) That at least 300 feet distance be kept between the rear end of a trip and the motor of the other trip when running on the same main haulageway at the same time, except when they are coupled together.

LIST OF FATAL ACCIDENTS WHICH OCCURRED IN THE COAL MINES OF COLORADO DURING THE YEAR 1933

January 5—CURTIS E. KNOX, American, night fireman, experience 6 months, age 19 years, single, employed by the Good Fuel Co. at the Christensen mine, Jefferson County, came to his death by being caught between a wire rope hoisting cable and sheave wheel. Deceased assisted his uncle, Mr. Knox, to haul a truck load of slack from a storage bin and spot it near the boiler room, and he was to transfer the slack from the truck by wheeling it into the boiler room in a wheelbarrow during his shift. To make the distance as short as possible the truck was spotted as near to the boiler house as permissible and in doing this the rear end of the truck was directly under the main hoisting cable which runs horizontally from the engine house to a sheave that turns it up to travel over the sheave wheel at the top of the head frame of the shaft. The sideboards of the truck extended to within five inches of the cable. The accident occurred while deceased was in the truck transferring the coal to the wheelbarrow, when the night foreman was going down the shaft to start the pumps. Night foreman got into the skip, the deceased gave a verbal signal to the engineer, who lowered the skip to the proper destination and walked out of the engine room and saw the deceased caught between the rope and lower sheave wheel. He called for help and with the assistance of Mr. Knox, reversed the wheel and released deceased who died a few minutes later. The accident would have been avoided had deceased got out of the truck before giving the signal or had the truck been stopped a few feet farther back so that it would not have been directly under the rope.

January 18—JOHN CHICCOVI, Spaniard, rancher, no experience in coal mining, age 41 years, married, two children, came to

his death by a fall of surface debris. The place of accident is a strip pit used by the community, who go there to mine their own coal free of charge. This pit is located in Elbert County, 12 miles east of Kiowa and is owned by Joseph H. Stander. The coal is six feet in thickness and very impure. It crops out in a gulch several feet above the floor. At the point where the accident happened there is about seven feet of cover over the coal. It seems that deceased was engaged in shovelling away the upper part of the seam which contained a large amount of impurities when the surface over-burden fell upon him, killing him almost instantly. There was no eyewitness present and the foregoing remarks are made from the testimony of Lawrence Bender and Joseph Stander of Kiowa, who helped remove the body from the scene of accident and who accompanied investigator to the pit. This accident could have been avoided if the face of the workings had been kept at an angle of 30 degrees with the horizontal and the coal stripped clean for a distance equal to the thickness of the seam. It is reported that a man was killed 10 years ago at a neighboring strip pit and two years ago a young man was seriously injured at the same pit.

January 25—RALPH CONLEY, American, pick miner, experience 1 year, age 40 years, married, two children, employed by Wm. Marriott at the Marriott mine, San Miguel County, was injured December 19, 1932 by a fall of draw slate which broke his back and caused internal injuries from which he died on the above date. Deceased returned to his working place after having fired a coal shot and started to remove the loose coal from the face when the draw rock over the roadhead gave way falling on him. The place was about 20 feet wide without props, the draw rock over the coal seam is about nine inches thick and is usually taken down after the coal is removed. At the time of the accident the draw rock was overhanging four feet without support. Had deceased timbered the rock or taken it down before he started to remove the coal at the face the accident would have been avoided. Experienced supervision at this mine and lack of good mining practice on part of the deceased are responsible for this accident. Recommended: That a good experienced miner be hired at this mine to look after the safety condition and take care of the inexperienced workers that may be employed.

January 29—CHAS. CESSNA, American, miner, experience 20 years, age unknown, widower, three children (grown up), employed by the North Park Coal Co. at the Moore No. 1 mine, Jackson County, was injured December 21, 1932, by jumping off from a swiftly moving trip of empty cars. It seems that deceased and the rope rider got on the empty trip just as it started to descend the slope, deceased inside the rope car and the rope rider on the rear. After traveling about 200 feet they realized from the great speed they were making that the trip was not under control and when opposite the third north parting they jumped off. The rope rider landed safely but deceased fell and rolled against the rope and

suffered serious injuries. However, he stayed in the mine until the end of the shift. He took to his bed and apparently did not receive proper attention. His wounds became infected and he died on the above date from septic poisoning. The rope rider stated that the brakes would not hold, but the mine foreman stated that the brakes were wet and had he gradually applied the clutch he might have been able to slow the trip down. The accident was a mishap for which no one could be held responsible. Recommended: That brakes on the hoist be tested by actual demonstration or other effective means before men are allowed to ascend or descend the slope.

January 31—SAM CLARK, American, machine miner, experience 30 years, age 48 years, married, two children, employed by the Shamrock Coal Co. at the Shamrock mine, Weld County, came to his death by electrocution. Deceased's partner was pushing an empty cars from the entry, intending to switch it into a room. Deceased was standing close to the switch points, between track and rib, to push over the corner of the car to force it to enter the room switch. The car, being new, was a little tight on the gauge. One wheel took the point and the other went straight, causing it to raise a little, and deceased stepped back into the electric feedline, electrocuting himself. All efforts to resuscitate him were of no avail. The accident was due to a mishap, due to the inherent dangers from electric feed lines in a wet mine. The company stated that the feed lines will be guarded where possible and will discontinue the use of any weatherproofed insulated wires and will replace that which is in use now with a grade of wire that will withstand moisture, if any are available in the markets.

February 10—FORRESTER CARR, American, machine miner, experience 14 years, age 33 years, married, one child, employed by the Garfield Coal Co. at the Garfield mine, Mesa County, was killed by a fall of rock. Deceased was working alone, laying a track to the face of an entry, preparatory to loading coal, when a large rock gave way over the roadhead, falling on him and killing him instantly. This entry is driven 15 feet wide with the track laid on one side. The roof is supported by a row of props five feet apart and parallel to the track on the wide side of the place. The last prop in this row was seven feet from the face. There was no roadhead prop at the time of accident and had there been one the accident probably would have been averted. As a future safety measure, it is recommended: That an emergency prop be used at all times in the working places of this mine.

March 7—GENNARO GUERRIERI, Italian, pick miner, experience 30 years, age 51 years, married, three children, employed by the Crested Butte Coal Co. at the Bulkley No. 2 mine, Gunnison County, was killed by a fall of rock. On March 4 the fire boss examined the working place of deceased and found that shots fired on the last day the mine worked had displaced several props at the

face and rock had fallen. He notified deceased of this condition and according to testimony the latter entered the mine to make the place safe and to prepare for the loading of coal the first day mine worked. He entered the mine without telling any of the officials and no one knew he was in the mine except his family. As he did not return at the usual quitting time, his family called the mine office and a search was made and he was found dead. It was found that deceased had reset two props when a piece of rock fell, striking him on the head and cutting off one finger. He walked about 50 feet and fell where he was found dead. This accident was due to the hazard of the work the deceased was doing and to a lack of discipline on part of the mine management in not enforcing an adequate checking system. To avoid future accidents of this kind the following recommendations are made:

(1) That a gate be placed at each entrance of mine and be closed when the mine is not working.

(2) That an adequate checking system be established and the miners be obliged to comply with same so that no one can enter the mine without the knowledge of the officials.

March 23—JAMES W. WATSON, American, tracklayer, experience 14 years, age 47 years, married, five children, employed by the McNeil Coal Corp. at the Sterling mine, Weld County, was killed by a fall of rock. In the section where the accident occurred pillars were being extracted and a final breakthrough in a room pillar had been made and during the night previous to accident, a cave took place in the extracted territory. A small amount of top coal and rock covered the ends of a pair of rails. Deceased and partner, after finding the place quiet, started to remove some of the rock and coal from the rail so that they could move same by hand. While engaged in this work a bump occurred, throwing down a large piece of coal from the rib and top and a slab from the roof followed, striking deceased on the back of his head and shoulders with sufficient force as to cause almost instant death. Accident was a mishap for which deceased was not responsible, as he was performing his duty, although it might have been avoided had a Sylvester and chain been used to pull out the rails.

Recommended: That a Sylvester or other method equally as safe be used to pull rails from under caves. The management stated that the above recommendation will be complied with.

April 16—PETER AUGUST SIRE, American, fire boss, experience 29 years, age 53 years, married, one child, employed by the Boulder Valley Coal Co. at the Boulder Valley mine, Weld County, was injured on March 17 by an underground timber truck and died on above date. During slack periods of working time, trips of timber trucks are spotted in various sections of the mine and fire bosses occasionally take a storage battery locomotive into such sections and unload timbers from the trucks and also distribute them in the working places. On the morning of the accident, deceased

and partner were doing this kind of work when an order was received for the men to withdraw. The trucks were practically unloaded. There were three other men working in the same section and deceased and partner decided to haul them out to the main north to meet the regular man trip that would be coming from the inby north sections. Deceased and the three miners were riding in the first timber truck which was coupled to the motor by a chain about two feet long. There were five other empty trucks on the trip and from evidence given, they were not traveling very fast but on going down a short dip in the track, the empties caught up to the motor, making slack couplings and when the motor picked up the slack, deceased was bumped out of the end of his truck and struck the second truck and injured so severely that he died a month later. The timber trucks are constructed similar to a mine car but lighter in weight and open on both ends. The accident was due to a mishap. The accident was unforeseen but might have been avoided had deceased braced himself more securely in the truck. The men were ordered out with their trucks on account of a fire at the bath house which seemed to be spreading; however, the fire was controlled and the withdrawal was unnecessary.

September 5—W. P. CLARK, American, pick miner, experience 40 years, age 55 years, married, five children, employed by the Mancos Hill Coal Co. at the Mancos Hill mine, Montezuma County, was killed by a fall of rock. Deceased was digging coal at the face of the room when a large piece of drawslate gave way from an invisible slip, striking him and injuring him so severely that he died shortly afterwards. The place was well timbered, having five rows of props about four feet apart and set within four feet from the face. The accident is classed as unforeseen and unavoidable. This mine employs no mine foreman.

June 21—WALTER POLITT, American, pick miner, experience 15 years, age 34 years, single, employed by the Pikes Peak Fuel Co. at the Pikeview mine, El Paso County, was killed by a fall of coal from the roof. A pillar was being extracted in a room off a haulage road where three feet of coal were left up for roof. This was being taken down to provide more height along the haulage road between the last cross cut and the inby breakthrough. A few short plug shots had been fired into the top coal and it was pulled down to a seam parting, leaving a lip of coal about 20 inches. Deceased when starting to work tested the lip of coal and decided to make it safe by driving a wedge over the top to snap off the loose edge. However, owing to the seam parting over farther than is usual, the edge did not break off but a large slab about 8 feet wide and 12 feet long and 20 inches thick gave way, threw out the roadside props and in some manner deceased was caught, receiving such injuries that resulted in immediate death. Deceased was an experienced miner, classed as a very good man for pillar work. The accident was unforeseen and no one could be held responsible for same.

July 21—THOMAS STRUTHERS, American, pick miner, experience 16 years, age 32 years, married, two children, employed by the Victor-American Fuel Co. at the Delagua mine, Las Animas County, was killed by a fall of rock. Deceased and two partners were working in a room splitting a barrier pillar, the two partners working at the face and deceased on the butts about 10 feet from face on the left side of the place. He had mined out coal along the rib towards the face when draw slate gave way from an invisible slip between the rib and props, falling on him and injuring him so severely that he died shortly afterwards. The distance from props to the rib was three feet and the place was well timbered. The accident was unforeseen and therefore unavoidable.

October 3—ABE BELL, American, pick miner, experience 25 years, age 44 years, single, employed by the Moffat Coal Co. at the Oak Hills No. 2 mine, Routt County, was killed by a fall of draw rock. The roof here has a draw rock covering, about one foot thick, overlying the coal and the roof is damp and sweaty, therefore none too safe. At the time of the accident deceased apparently was making a place to set up a prop near the face when a bump occurred causing several pieces of draw rock to fall on him and injuring him so severely that he died shortly afterwards. The place was well timbered, including roadhead prop, and deceased tested the roof just prior to the bump occurring and the roof sounded alright. He was a careful workman and the accident was unforeseen and is classed as unavoidable.

October 13—ROY LOPEZ, Mexican, pick miner, experience 9 years, age 28, single, employed by the Vickers Coal Co. at the Kenneth mine, Las Animas County, was killed by a fall of draw slate from the roof. Deceased and his partner were taking a skip off an upper rib in an entry. When they started to work they were warned by the night mine foreman that the roof was bad, as a slip had opened up along the roadway about five feet from the rib. They trimmed down the loose rock to within about two and one-half feet of rib where they found it too solid to proceed, so two props were set under the overhanging rock and they began to dig coal off the rib. Evidently they thus released the back end of the slip which swung the two props out and let down about a ton of rock, which fell on the two men, injuring deceased so severely that he died four hours later and breaking the back of his partner. The night foreman is also required to run a hoist and it is questionable whether he has time to properly perform his duties as an official. From the evidence given, the accident is classed as unavoidable, but it is recommended:

That the night foreman shall not be required to do any work that interferes with the regular duties as outlined by the title of his position.

November 27—C. W. MILES, American, night engineer, experience 30 years, age 50 years, married, three children, employed by

the Hayden Coal Co. at the Hayden No. 3 mine, Routt County, came to his death through suffocation. At the time of the accident deceased was shoveling fine coal into a concrete pit 3 feet 4 inches long, 3 feet wide and about 4 feet deep. A hose was close at hand running water into the pit to wet the fine coal down. An elevator carried the wetted coal from this pit to a screw in the boiler room which in turn delivered it to bins at the boilers for stoker firing. The elevator is electric and belt driven. In some way deceased fell into the pit, which at the time contained from 2½ to 3 feet of water, and apparently his arm was caught in the elevator, which was in motion, as from the position of his body he made desperate efforts to free himself, his right foot was above the water resting against the wall of the pit and the rest of the body being submerged under the water and not being able to disentangle himself, he was suffocated. Apparently his arm stuck in the elevator as the motor continued to run until the pulley had burned a hole in the belt before the arm was released from the pulley. The accident was a misadventure for which no one could be held responsible. Deceased was a competent and careful workman.

November 29—VAN CLOSE, American, machine miner, experience 26 years, age 43 years, married, three children, employed by the Colorado & Utah Coal Co. at the Harris No. 1 mine, Routt County, was killed by a fall of draw rock. Accident happened in a room pillar. Pillar was cut at the inby end by an arc-wall machine, electrically driven. The machine cuts in the seam four feet below cut and five feet above. The upper part of cut is loaded out first. At the time of the accident deceased was picking down loose coal, loading it into pit car. An invisible slip was exposed, causing a fall of draw rock from the roof to fall on him, causing instant death. The place had been visited two hours prior to the accident. Deceased's partner testified that they had tested the roof before starting to work and during intervals between and found the roof good. The accident happened in P slope. The timbering agreement for this section of the mine calls for timbers to be kept up to within 8½ feet of face. At the time of the accident the nearest timbers to the face were 15 feet away. The company is held responsible for the accident through its failure to have timbering agreement enforced.

Recommendation: That timbers at all times be set in accordance with timbering agreement.

December 2—R. J. BOYLE, American, mine foreman, experience 25 years, age 42 years, married, no children, employed by the Good Fuel Co. at the Littleton Valley mine, Jefferson County; and

MARTIN KRANLEIDES, German, mine mechanic, experience not known, age 44 years, single, employed by the Good Fuel Co. at the Littleton Valley mine, Jefferson County, both of whom came to their deaths from suffocation, caused by black damp. (See detailed report attached hereto, page 129.)

December 2—CHARLES FOSS, American, machine miner, experience 13 years, age 30 years, single, employed by the Louisville-Lafayette Coal Co. at the Hi-Way mine, Boulder County, was electrocuted by coming in contact with a wire charged with 440 volts A. C. Deceased and two partners were preparing to load coal lying on an entry track. The former had placed his coal check on the outby end of his car and was walking between it and the entry rib to start loading when he slipped and in trying to keep from falling, he grabbed a bare spot in the electric feed line wires laid along the rib. The electric feed line wires laid in this section of the mine are insulated with what is known as "rubber covering." At some time a splice was made in one of the wires and was not insulated or taped, leaving a bare spot of about five inches in length. From the evidence given, no one knew that such a bare place existed in the line. The coal mining laws require that all wires, other than trolley wires, conducting electricity, be properly shielded or insulated. This rule being neglected, the company is held responsible for the accident.

December 29—LOUIS CHIODO, Italian, rope rider, experience limited, age 23 years, single, employed by The Colorado Fuel & Iron Co. at the Crested Butte mine, Gunnison County, was run over by a trip of empty cars. Deceased had left his work a little before the regular quitting time and arrived at the man trip station, which is located close to main rope parting. The time was about 3:20 P. M. and as the man trip did not leave the parting until 3:45 P. M., deceased decided to walk. He started out on the manway, but when he came to the first connecting cross cut between manway and haulageway, he cut back to the main haulageway and proceeded out. When he had walked about 150 feet, an empty rope trip coming from the outside knocked him down and injured him so severely that he died an hour later. The haulageway at the point where the accident occurred has an average clearance of three feet on each side of the track, which gave the deceased plenty clearance to get out of the way of the trip. It is possible, however, that the trip being so close to the deceased, that the rope jumping off a roller knocked his feet from under him and, losing his balance, he fell in front of the trip. There were no eye witnesses to the accident. The deceased was entirely to blame, as he was violating the coal mining laws and the company safety rules by traveling the main haulageway when there is a regular manway provided for that purpose. Had he quit work at the regular time the man-trip would have taken him safely out. The discipline at this mine is very good and any miner or employe violating the mining laws or safety rules is punished by being discharged or laid off for several days.

REMARKS ON FATAL ACCIDENT AT THE LITTLETON
VALLEY COAL MINE OPERATED BY THE LITTLETON
VALLEY COAL COMPANY, JEFFERSON COUNTY,
COLORADO, ON DECEMBER 1, 1933

The quality of the coal is sub-bituminous and very subject to spontaneous combustion, the seam being from six to seven feet in thickness and pitching from 67° to 85°. On December 30, 1932, a fire was discovered in chute No. 16, sixth south entry. Deputy Inspector Hugo H. Machin, on December 31, 1932, investigated same and recommended that the south side of mine be sealed off with temporary stoppings, to be followed up immediately with permanent concrete stoppings. The mine at this time was being operated by Thomas Harris and Associates, who agreed to buy Charles Daniels interests in the property. Harris and Associates failed to carry out the recommendations, thereby forcing Mr. Daniels to take over the mine and, in order to save the mine he built temporary stoppings.

On September 29, 1935, the mine was again examined by Deputy Inspector Machin. The permanent stoppings not having been built, a recommendation was made "that permanent concrete stoppings be completed in thirty days," and Mr. Daniels agreed to have this done.

On December 2, 1933, at 1:00 A. M., I was notified that an explosion had occurred and that two men were in the mine. Arriving there shortly afterwards with E. H. Denny of the U. S. Bureau of Mines and Inspector Machin, we found that no explosion had taken place, but that the fumes from the area enclosed by the temporary stoppings had leaked through them and ascended the slope to a point above the pump.

The deceased, Martin Kranleides, the night mechanic, went down the slope about 10:00 P. M. on December 1, 1933, to oil the pump, and failing to return in a reasonable time, Mr. McCallum, the day mechanic, went down the slope and saw Kranleides lying down. McCallum ascended the slope, called night foreman Robert Boyle, and day foreman John Worman. The above named three then went down the slope, McCallum getting off at the end of the bell line. Boyle and Worman continued down to the pump and on reaching Kranleides they raised him up to put him in an empty car in order to bring him out to the surface, but before they got the body high enough, Boyle ordered Worman to get into the car, giving at the same time a signal to McCallum to have the car hoisted. Worman succeeded in getting into the car; Boyle failed to get in.

After several hours' effort we found the ventilation insufficient to remove the heavy black damp (CO_2) in order to get the bodies. Not having oxygen breathing apparatus, the Denver Fire Department was called. They arrived in a short time and with their gas

masks they entered the mine, accompanied by Charles Daniels, E. H. Denny and Hugo H. Machin and brought out the bodies.

On account of lack of funds the Coal Mine Inspection Department was unable to again inspect this mine at the expiration of the time allowed on September 29, 1933, to see if the recommendations made at that time had been complied with. It is my opinion that if this had been done, the mine would have been closed down until the permanent stoppings were built and thereby avoiding the accident.

The Littleton Valley Coal Company, through failure to comply with the coal mining laws upon recommendations made, is held responsible for the accident.

I wish to convey to the Denver Fire Department and all others assisting in the recovery of the bodies my sincere thanks.

JAMES DALRYMPLE,
State Inspector of Coal Mines.

FATAL ACCIDENTS WHICH OCCURRED IN THE COAL MINES OF COLORADO DURING THE YEAR 1934

January 4—MIKE FUNERO, Italian, company man, experience 25 years, age 48 years, widower, not known to have children, employed by the Vickers Coal Co. at the Kenneth mine, Las Animas County, was struck by a loaded trip of cars and from the effects of which he died shortly afterwards. Deceased was employed as a general utility man and on the morning of the accident he had completed the installation of a door on an entry and had sent his tools in an empty trip to an entry where he was to start putting in permanent stoppings. He followed the empty trip to the 17th entry and waited on the dip track while the rope rider pulled a loaded trip out of the entry parting. He was not familiar with the haulage in this section of the mine and as soon as the loaded trip was pulled, he started to proceed on the loaded track and was met by a loaded trip that was dropped on to the parting. There is sufficient clearance on the parting between loaded and empty tracks for him to have stepped aside and have been in the clear, but apparently he became confused and attempted to run back to the dip entry and was overtaken and knocked down with fatal results. The accident was a misadventure for which no one could be held responsible.

All main partings are to be electrically lighted and this may prevent such accidents in the future.

March 26—CHAS. LLOYD DEAN, American, driver, experience 13 years, age 30 years, married, five children, employed by the McNeil Coal Corp. at the Sterling mine, Weld County, came to his death by being struck by a mine car. A few minutes after the accident occurred, deceased was found by Chas. Adeock, driver, in an entry lying on his back under the second car of a trip. When

asked how it happened, he said, "the mule fell and I fell with him." The mule was unhitched and no derailment had taken place. The grade of the track here is about 5% in favor of the loads. Height of entry is 64 inches. Width of entry 8½ feet, and plenty of clearance. Deceased had complained thirty minutes before accident that he felt ill, and whether this was contributory to his fall is not known. The front end of the car had not run over him, as there is very little clearance between the bottom of the cars and roadbed. How he got under the second car without the front car running over him is a mystery, for had it done so, he would have been badly mangled. There was no eye witness to the accident and it is classed as unavoidable. To prevent similar accident the following recommendation is made: That all drivers be compelled to ride rear end of all trips, or that shafts and guns be used in place of tail chains.

April 1—JOHN M. ROGERS, American, pick miner, experience 15 years, age 51 years, married, two children, employed by the Gilson Asphaltum Co. at the Carbonero mine, Garfield County, came to his death through carbon monoxide poisoning. On April 1, between the hours of 9:00 A. M. and 10:00 A. M., deceased entered the mine to do some work. About noon on the same day, a fire was discovered in the fan house of the mine. The local officials, knowing Rogers to be in the mine, made an attempt to rescue him. The ventilating equipment was destroyed by the fire and it was impossible to enter the mine. An emergency fan was installed and a rescue party entered the mine on April 2, recovered the body and brought it outside. The fire in the mine was sealed off by concrete stoppings and a new fan installed. The fire in the mine is confined to the abandoned part of the workings. The active part is not affected. The accident is classed as a misadventure for which no one is held responsible. However, the following recommendation was made for future guidance: That a gate be placed at the entrance of the mine and locked to prevent any miners from going into the mine until it has been examined by a certified mine official and with their permission.

May 3—PAUL MARTINI, Italian, timberman, experience 25 years, age 46, married, five children (two minors), employed by the Leyden Lignite Co. at the Leyden No. 3 mine, Jefferson County, was injured on January 30, 1934, by a fall of top coal and died as a result of same on above date. Deceased and Nils Jorgensen were grading track when top coal fell. John Romans and partner, miners, heard the fall, looked around and saw Martini and Jorgensen partly covered with coal. There is from 1,200 to 1,500 feet of cover over the coal and in pulling of pillars there is continual roof movement accompanied by heavy bumps, three of which occurred while taking the statements of Romans and partner. They stated that there was no warning before the coal fell. It is my opinion that top coal was displaced by a sudden bump, no one being held responsible. Martini and Jorgensen were directed to grade this track and

remove two low cross bars. The accident might have been avoided had the timbering been done before track work.

Recommended: That wherever timbering is necessary in conjunction with track grading, that timbering be done first.

May 25—JOE ROSKOSKI, American, machine loader, experience 30 years, age 56 years, married, two children, employed by the Temple Fuel Co. at the Brodhead No. 9 mine, Las Animas County, was instantly killed by a fall of rock. Deceased and his son-in-law had loaded the last car of a previous cutting when a pot rock $7\frac{1}{2}$ by $6\frac{1}{2}$ feet and two feet thick fell from the right side of the place where he was working and struck him. The fall of rock dislodged two props, breaking four inches over face of solid coal. Width of room 14 feet 9 inches and length from main entry 25 feet. Height of coal 3 feet 8 inches and distances between props $3\frac{1}{2}$ feet, which made the place well timbered. On account of the height of coal, cross bars cannot be used, as it would make the place too low for cars to enter. The machinemen agreed that hereafter when they entered such places to cut, that they would stop at intervals to examine the roof for such pots and if such are discovered the place would be stopped until the management has time to shoot the pot down. The accident is classed as unavoidable.

May 29—THOS. TEMPLEMAN, American, machine miner, experience 39 years, age 52 years, married, three children, employed by The Colorado Fuel & Iron Co. at the Cameron (Robinson No. 4) mine, Huerfano County, was killed by a fall of rock. Deceased with his son and another man were working in the main south entry, which is driven 23 feet wide as a gob entry. A draw slate from eight to 18 inches thick generally comes down with the coal when it is shot. The three men had loaded 13 cars of coal from the cut when they discovered a bad pot rock on the left side of the place where three props had been set some time before. The man on the left side had taken out two props to let down the rock, the other two men were standing next to the car at the face close to the third prop when it gave way, releasing the pot rock, catching deceased between the car and rock and killing him. According to evidence, the place was well timbered. It is possible that if the car had not been at the face, the accident might have been avoided. It is classed as unforeseen and unavoidable.

July 14—MIKE PAVLICA, Slav, pick miner, experience 26 years, age 46 years, married, six children, employed by the Pikes Peak Fuel Co. at the Pikeview mine, El Paso County, was killed by a fall of top coal. The deceased and five other men were engaged in pulling chain pillar and room stumps in an entry. One hour and ten minutes before the accident occurred the mine foreman had instructed the six men to load up the loose coal, thus finishing the place. This had been done when the top coal, two feet in thickness, gave way suddenly and fell on deceased, who was leaving the place with his tools and had reached a point within four feet of safety.

From the evidence of the other five men the top coal fell very suddenly, giving practically no warning. At the time of inspecting the accident another fall of rock had fallen on top of coal, so that it could not be ascertained how well the place had been timbered before top coal fell. Deceased was considered a very careful worker by his employer and fellow workers. The accident is classed as unavoidable.

July 18—JOHN W. GRAVES, American, company man, experience 15 years, age 51, married, three children, employed by the Pikes Peak Fuel Co. at the Pikeview mine, El Paso County, was killed by a fall of top coal. The deceased was instructed by the mine foreman while making his examination on the morning of the accident to pull up a room switch that day after quitting time so that the track could be graded. This work apparently had been started when accident happened through a fall of top coal. The fifth dip district is pillar work and has considerable squeeze on it, both on haulageway and working places. Timbers are being broken and pushed out of place daily. The bottom is heaving all the time so that considerable supervision is necessary to keep the district in reasonably safe condition. The accident is considered unavoidable.

Recommendations: 1. That enough certified men be employed to assist the mine foreman so that pillar work and squeezed territories will be examined at least three times during the shift. 2. That sounding sticks with metal ends be used in testing roof. 3. That in all pillar work the maximum distance between props shall be six feet and distance between last props and face six feet. The last recommendation applies to pillar work.

July 28—WILLIAM KELLITT, English, machine miner, experience 36 years, age 58 years, married, five children, employed by the Rocky Mountain Fuel Co. at the Columbine mine, Weld County, was killed by a fall of rock. Accident occurred in a room pillar. All of the last machine cut coal had been loaded out and deceased and his partner were taking out the last remaining portions of coal from face and ribs by pick from the cutthrough. While loading the car, the place suddenly began to cave and both started to run out. The partner, being in front, was successful, but deceased slipped over a loose pile of coal just as a cross bar gave way, releasing top coal, which fell across his foot in such a manner he could not extricate himself. The partner immediately got help from other men working close by, but the place was working to such an extent that they could not get him out until he was covered up and he died from the shock and suffocation.

The mine foreman had visited the place an hour before the accident and found the place well timbered and no evidence of danger of caving. The accident was due to the inherent danger of pillar work and is classed as unforeseen and unavoidable.

September 5—FRANK MONTEZ, Mexican, machine miner, experience 23 years, age 43 years, married, six children, employed

by the Rocky Mountain Fuel Co. at the Columbine mine, Weld County, was killed by an electric shock. It was quitting time and deceased was on his way out of the mine when he came to the double parting at the bottom of the shaft. He walked between the tracks filled with loaded coal cars. Upon reaching the cross-over, the cars on both tracks came together. He undertook to pass between two loaded cars and came in contact with a trolley wire suspended directly over the cars carrying 250 volts D. C. The car bumpers are of steel and deceased had steel plates on his shoe soles and his clothing was wet from perspiration, making a complete contact. First aid was immediately applied and when the doctor arrived he was taken to the surface and a pulmotor was used for an hour but without result. The accident is classed as unavoidable. However, the following recommendation was made: That notice prohibiting employees from traveling on double parting be posted at north end of double parting and that all employees be compelled to travel manway to bottom of shaft. Management advised that they would have trench cut in roof and the wires placed in same.

September 11—TONY SPANDRE, Italian, pick miner, experience 20 years, age 57 years, married, two children, employed by George Brown at the Fire Glow mine, La Plata County, was killed by a fall of coal. Deceased was undermining coal on the right hand side of an upraise working place. He had mined the coal to a depth of five feet and about 20 feet long and had spragged it five feet apart. At the point where the accident occurred, a piece of coal about one foot thick by four feet long gave way from a slip, striking deceased, who lost his balance, falling down the raise, striking a prop, and the coal that fell crushed him against the prop. The place was well timbered and the coal which fell was likewise well spragged. The accident is classed as unavoidable. Recommended: That the method of mining this coal seam be changed. That on account of the steep pitch of the coal seam, the upraises be kept full of coal while the places are being advanced.

September 23—JOHN LEGAL, Austrian, pick miner, experience 22 years, age 47 years, married, two children, employed by the Leyden Lignite Co. at the Leyden No. 3 mine, Jefferson County, was injured on September 18, 1934, by a fall of face coal and died on above date. Deceased and three partners were pulling pillars, a connection had been made near the roof with another place. The coal is about six feet thick. Deceased was standing up and picking near the floor when the face coal gave way, striking him and causing such injuries as to cause his death. From the testimony of his partners, it seems that he might have saved himself had he stepped to the left instead of stepping straight back. He may have hoped that the prop knocked out by the coal would protect him against the coal fall. The accident is classed as unavoidable.

September 26—JOHN PARESS, Greek, pick miner, experience 22 years, age 51 years, married, three children, employed by the

Clayton Coal Co. at the Clayton mine, Weld County, came to his death by a fall of face coal. Deceased and his partner, Pete Jerfas, were working night shift pulling pillars between rooms. They had taken one slice 18 feet long off a pillar and were taking off a second slice. A thin stump was left which they were taking out by hand. It collapsed, killing Paress and injuring Jerfas seriously. The accident is classed as unavoidable. However, the recovery of such stumps is very dangerous and in order to minimize the hazard of the work, the following recommendation is made: That before stumps of coal left behind pillar work may be removed, the work must have the approval of the mine foreman.

October 6—E. F. PENNY, American, pick miner, experience 2 years, age 18 years, single, employed by the American Independent Coal Co. at the American Independent mine, Fremont County, was killed in a room off the main entry by a fall of top rock. The day before the accident deceased and his partner had taken down the top brushing to the coal face. On the morning of the 6th they fired a shot in the coal at the roadhead and were loading their second car when the fall occurred. This top rock or brushing is about three feet thick and in mining the coal they exposed about two feet of it, the width of the roadway, and under this they set two props about three and one-half feet apart, but an invisible slip on the right side of the road gave way and pulled clear across the roadhead parting to almost the center of the two props and a heavy fall of rock caught deceased in a stooping position, injuring him to such an extent that he died in a few minutes. The timbering of this room was very good. Mine foreman had visited the place about two hours prior to accident. The accident is classed as unavoidable due to the hazard of the work.

October 15—BENJAMIN MARTINEZ, American, machine runner, experience 19 years, age 37 years, married, six children, employed by the Aztec Coal Mining Co. at the Toltec mine, Huerfano County, came to his death by electrocution. Deceased and his helper had cut five places during the day and the helper had just set the jackpipe preparing to pull the machine to the upper rib to cut a cross cut. Deceased had hold of the chain and reached over to get hold of the friction lever to start the machine and was electrocuted as the machine was short circuited. When the machine was dismantled and tested it was found that the insulation had given way on one of the stator leads, causing a short. This machine had been overhauled about two weeks before the accident and had given no trouble since then. The accident is classed as unforeseen and therefore unavoidable.

October 18—WILLIAM S. CAMPBELL, Scotch, Superintendent and Mine Foreman, experience 30 years, age 47 years, married, three children, employed by the Gordon Coal Co. at the Gordon mine, Huerfano County, came to his death by being electrocuted. On the morning of the accident the tracklayer stated that

he smelled the odor of burning insulation and saw smoke coming from the back entry. He investigated and found that a fall of rock had taken place, tearing the power line from its fastenings and it lay on the damp ties and rock at the bottom. This caused a leakage in the line and burned the insulation. The tracklayer cut the power switch and lifted the power line and placed try ties under it for insulating purposes. Deceased arrived later and was informed by one of the drivers that there had been trouble with the power line and that smoke had been coming from the back entry. Mr. Campbell, the deceased, said that he would investigate and that was the last seen of him until his body was found the following night. There were no eye witnesses but from the conditions surrounding the point of accident there was a pool of water and to cross this, deceased evidently stepped on a wet tie lying in the water and he either slipped or the tie turned under his foot, causing him to fall, and his left hand came in contact with the power line, resulting in his being electrocuted. The power lines are well insulated but were evidently damp or wet from having been in the water. The accident is classed as a mishap for which no one can be held responsible.

November 5—JOE RAMIREZ, Mexican, machine miner, experience not given, age 41 years, single, employed by the National Fuel Co. at the Puritan mine, Weld County, was killed by a fall of coal. Deceased and seven partners were extracting room-neck and chain pillars at the most inby point of an entry. Here the top coal is left up to form a good roof. The first electric cut from the lift of the chain pillar was shot down and a few cars of coal loaded out when the assistant mine foreman visited the place and ordered as many as possible to load from the chain pillar. Deceased and five men began to load three cars from the chain pillar and while doing so a large piece of coal tumbled over and pinned deceased against the side of a car, causing such injuries that he died a few hours afterwards. The mine foreman had visited the place three hours prior to the accident. The place was well timbered and the accident was a mishap for which no one could be held responsible.

November 24—TONY SHAIN, Italian, pick miner, experience 20 years, age 39 years, married, three children, employed by the Victor-American Fuel Co. at the Delagua mine, Las Animas County, was injured by a fall of rock on September 19 and died on the above date. According to the evidence of his partner, deceased was mining coal on the inby end of a pillar and had mined about two feet when top coal and rock gave way from an invisible slip in the roof, dislodging two props and burying him under the fall. The mine foreman had visited the place two hours prior to the accident. It was well timbered and deceased was considered a good miner. The accident was unforeseen, therefore unavoidable.

November 26—DOMINICK SPAGNOLI, Italian, machine loader, experience 25 years, age 59 years, married, no children, em-

ployed by the W. A. Ream Coal Co. at the Spanish Peak mine, Huerfano County, was killed by a fall of rock. Deceased was working alone in a room and his body was found at quitting time under a fall of drawslate, about three feet from the face. The place was cleaned up and made ready for the cutting machine and in order for the machine to be moved to the face an emergency roadhead prop had to be removed four feet from the face. Deceased was chopping out the roadhead prop when the drawslate gave way from a visible slip. This visible slip was recognizable to both miner and mine officials. The fire boss had visited the place a few hours prior to the accident. The system of timbering should have been changed from single prop to cross bars. Had this been done, the accident might have been avoided.

Recommended and to be put into immediate effect: That where the roof is bad and the slip angles are traveling in different directions in the roof, that the places be cross barred instead of using single props only.

November 29—CHARLES HIGGINS, American, machine miner, experience 28 years, age 57 years, married, eight children, employed by David Allan, Crown mine, Boulder County, injured his finger on November 19 and died from an infection which set in five days later. He accidentally pinched his finger between a piece of rock and prop and had the doctor bandage it for him on the same day. A few days later blood poison set in and he was sent to the hospital. On the 28th it was found necessary to operate on him and he died the following day. The accident is classed as unavoidable.

December 10—JOHN J. DALY, American, switchman, experience 18 years, widower, no children, employed by the National Fuel Co. at the Monarch No. 2 mine, Boulder County, was caught between a fly wheel shaker screen engine and injured so seriously that he died a few hours later. He was caught while passing between the fly wheel of the shaker screen engine and the wall of the building. The clearance between the wheel and wall is fifteen inches. The shaker was in motion and he either stumbled or unthinkingly laid his hand on the belt, which threw him into the fly wheel. Had deceased waited until the engine stopped, the accident would have been avoided. The jury recommended that fly wheel be boxed or some other safety device be installed to prevent future accidents of this kind.

SUMMARY OF THE COAL PRODUCTION OF COLORADO FOR 1931 AND 1932

| | 1931 | 1932 |
|--------------------------------------------------------------------------------------------------|------------------|-----------------------------------|
| Number of mines operated reporting production..... | 318 | 345 |
| Number of new and old mines opened: New mines 6, old mines reopened 55, total..... | 61 | 13 + 27 = 40 |
| Number of mines closed 12, abandoned 6, total..... | 18 | 8 + 5 = 13 |
| Tons of sub-bituminous coal produced..... | 2,686,132 | 2,502,873 |
| Tons of semi-bituminous coal produced..... | 158,972 | 183,600 |
| Tons of bituminous coal produced..... | 3,696,513 | 2,857,958 |
| Tons of semi-anthracite coal produced..... | 37,685 | 46,704 |
| Tons of anthracite coal produced..... | 24,761 | 25,390 |
| TOTAL NUMBER OF TONS OF COAL PRODUCED | 6,604,063 | 5,616,525 |
| Decrease, 1931..... | 1,634,031 | 987,538 |
| Tons of run-of-mine coal produced..... | 1,224,186 | 1,092,137 |
| Tons of Lump coal produced..... | 1,854,729 | 1,567,320 |
| Tons of Nut coal produced..... | 761,722 | 750,724 |
| Tons of Pea coal produced..... | 241,243 | 203,646 |
| Tons of Slack coal produced..... | 2,522,183 | 2,002,698 |
| Percentage of Slack coal produced..... | 46.9% | 43.6% |
| Tons of coal mined by hand..... | 2,334,304 | 1,790,969 |
| Tons of coal mined by machine..... | 4,269,759 | 3,825,556 |
| Number and kind of machines used: compressed air 58; electric 339; total..... | 397 | 61 + 243 = 404 |
| Tons of coal mined for shipment; railroad 5- 308,663; trucks and wagons 1,148,184; total..... | 6,456,847 | 4,166,907 + 1,312,134 = 5,479,041 |
| Tons of coal shipped out of the state..... | 1,284,423 | 1,034,005 |
| Tons of coal used at the mines for heat, power, waste, etc..... | 147,216 | 137,484 |
| Tons of coal made into coke..... | 439,189 | 186,753 |
| Tons of coke made..... | 264,269 | 115,943 |
| Number of days coke ovens were operated..... | 322.5 | 214 |
| Number of men employed at coke ovens..... | 76 | 41 |
| Number of coke ovens used..... | 266 | 144 |
| Number of miners employed: pick miners, 2,565; machine miners, 3,394; total..... | 5,959 | 2,474 + 3,047 = 5,521 |
| Number of men employed in and about mines (average)..... | 10,015 | 8,786 |
| Average number of days worked (man-days)..... | 139.7 | 134.7 |
| Daily production per miner, tons..... | 7.93 | 7.55 |
| Annual production per miner, tons..... | 1,108.25 | 1,017.3 |
| Number and type of safety lamps used: flame, 664; electric, 9,018; total..... | 9,682 | 338 + 7,835 = 8,223 |
| Number of carbide lamps used..... | 2,754 | 2,619 |
| Number of pounds of carbide used (*approximate)..... | 79,982 | 73,400 |
| Number of pounds of black powder used..... | 750,855 | 725,027 |
| Number of pounds of permissible powder used..... | 400,414 | 290,514 |
| Number of pounds of dynamite powder used..... | 30,256 | 50,255 |
| Number of men killed: Underground, 19; sur- face, 3; total..... | 22 | 28 + 1 = 29 |
| Number of men injured..... | 1,238 | 1,083 |
| Number of men killed per thousand 300 day workers..... | 4.75 | 7.35 |
| Number of men killed per thousand employed..... | 2.2 | 3.30 |
| Number of tons of coal produced for each life lost..... | 300,184 | 193,673 |
| Number of men employed per fatal accident..... | 455.2 | 302.96 |
| Number of men killed per million tons of coal produced..... | 3.33 | 5.18 |
| Number of men injured per thousand employed..... | 123.6 | 124.40 |
| Number of tons of coal produced for each non- fatal accident..... | 5,334 | 5,187 |
| Number of men employed per non-fatal accident..... | 8.1 | 8.11 |
| Number of men injured per million tons of coal produced..... | 187.5 | 192.82 |
| Number of widows left..... | 14 | 22 |
| Number of children left fatherless..... | 41 | 49 |

*A number of the mines did not report the carbide used as same was furnished by the employes.

SUMMARY OF THE COAL PRODUCTION OF COLORADO FOR 1933 AND 1934

| | 1933 | 1934 |
|-----------------------------------------------------------------------------------------------------|------------------|-----------------------------------|
| Number of mines reporting production..... | 375 | 352 |
| Number of mines operated and inspected by inspectors | 421 | 429 |
| Number of new and old mines opened: New 24; old 36; total..... | 60 | 13 + 18 = 31 |
| Number of mines closed: 29; abandoned, 1; total..... | 30 | 7 + 16 = 23 |
| Tons of sub-bituminous coal produced..... | 2,425,047 | 2,325,548 |
| Tons of semi-bituminous coal produced..... | 154,002 | 195,432 |
| Tons of bituminous coal produced..... | 2,643,871 | 2,671,870 |
| Tons of semi-anthracite coal produced..... | 49,528 | 50,837 |
| Tons of anthracite coal produced..... | 12,424 | 7,316 |
| TOTAL NUMBER OF TONS OF COAL PRODUCED | 5,284,872 | 5,251,003 |
| Decrease, 1933..... | 331,653 | 33,569 |
| Tons of run-of-mine coal produced | 980,076 | 930,039 |
| Tons of Lump coal produced..... | 1,313,894 | 1,277,993 |
| Tons of Nut coal produced..... | 669,327 | 526,130 |
| Tons of Pea coal produced..... | 242,236 | 272,235 |
| Tons of Slack coal produced..... | 2,079,339 | 2,244,606 |
| Percentage of Slack coal produced..... | 48.5 | 42.7 |
| Tons of coal mined by hand..... | 1,932,619 | 1,913,960 |
| Tons of coal mined by machine..... | 3,352,253 | 3,337,043 |
| Number and kind of machines used: Compressed air, 61; Electric, 302; total..... | 363 | 63 + 365 = 428 |
| Tons of coal mined for shipment: Railroad, 3,- 959,309; trucks and wagons, 1,193,703; total..... | 5,153,512 | 3,970,735 + 1,142,746 = 5,113,481 |
| Tons of coal shipped out of the state..... | 1,037,062 | 600,847 |
| Tons of coal used at mines for heat, power, waste, etc..... | 131,360 | 137,522 |
| Tons of coal made into coke..... | 302,814 | 855,458 |
| Tons of coke made..... | 174,882 | 208,910 |
| Number of men employed at coke ovens..... | 160 | 78 |
| Number of days coke ovens were operated..... | 258 | 317.5 |
| Number of coke ovens used..... | 40 | 48 |
| Number of miners employed: Pick miners, 2,005; Machine miners, 2,999; total..... | 5,004 | 1,815 + 3,057 = 4,872 |
| Number of men employed in and about mines (average)..... | 8,179 | 8,138 |
| Average number of days worked (man-days)..... | 139.5 | 142.9 |
| Daily production per miner, tons..... | 7.58 | 7.53 |
| Annual production per miner, tons..... | 1,005.6 | 1,077.8 |
| Number and type of safety lamps used: Flame 354; Electric, 7,457; total..... | 7,811 | 352 + 7,393 = 7,745 |
| Number of carbide lamps used..... | 2,711 | 2,576 |
| Number of pounds of carbide used (*approximate)..... | 101,813 | 69,924 |
| Number of pounds of black powder used..... | 777,265 | 678,455 |
| Number of pounds of permissible powder used..... | 273,907 | 273,446 |
| Number of pounds of dynamite powder used..... | 27,565 | 33,919 |
| Number of pounds of Cardox used..... | 37,472 | ----- |
| Number of men killed: Underground, 17; Sur- face, 3; total..... | 20 | 20 + 1 = 21 |
| Number of men injured..... | 1,042 | 963 |
| Number of men killed per thousand 300 day workers | 4.73 | 5.44 |
| Number of men killed per 1000 employed, actual days worked..... | 2.20 | 2.58 |
| Number of tons of coal produced per fatal acci- dent | 264,244 | 250,048 |
| Number of men employed per fatal accident..... | 409 | 387.5 |
| Number of men killed per million tons coal pro- duced | 3.78 | 4.0 |
| Number of men injured per 1000 employed..... | 127.4 | 118.3 |
| Number of tons of coal produced per non-fatal accident | 5,072 | 5,453 |
| Number of men employed per non-fatal accident..... | 7.84 | 8.5 |
| Number of men injured per million tons coal pro- duced | 197.17 | 183.4 |
| Number of widows left..... | 12 | 18 |
| Number of children left fatherless..... | 32 | 61 |

*A number of the mines did not report the carbide used as same was furnished by the employes.

Four mines reporting a production of 1,325 tons of coal came in too late to embody their production in the regular report.

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