

EIGHTEENTH ANNUAL REPORT

OF THE

STATE INSPECTOR OF COAL MINES

1930



THE BRADFORD-ROBINSON PRINTING CO DENVER, COLORADO 1931

CONTENTS OF ANNUAL REPORT

ACCIDENTS: P	age
(Fatal)	
Number of Accidents in State, 1913 to 1930	
Number in mines employing 5 men or less, 1913 to 1930	
Number by company, 1930 Number killed per 1,000 employed, 1930	- 17 17
Cause and occupation	
(Non-fatal)	
Number cause and time lost	. 16
Number by companies, 1930	
Number injured per 1,000 employed, 1930	. 17
BOARD OF EXAMINERS:	
Names and addresses of members Certificates issued in 1930	
DIRECTORY:	
Name and address of companyInsert in back of k	
Name, county and post office of mineInsert in back of h	
Name of manager and superintendentInsert in back of b Railroad serving mineInsert in back of b	
Kind of mine (gaseous or non-gaseous)Insert in back of t	
Kind of openingInsert in back of b	
Method of ventilationInsert in back of k	oook
EMPLOYES:	
Number in and about mines, 1913 to 1930 Number in mines employing 5 men or less, 1913 to 1930	. 7
Number employed by companies Number in each mine by counties and days worked	
Number and occupation	
Coke	
FINANCIAL STATEMENT	5
FIRST AID TRAINING	13
INTRODUCTION	. 7
LETTER OF TRANSMITTAL	4
MINES, CLASSIFICATION, LOCATION, ETC7, 11, 28 and In	sert
PERSONNEL OF DEPARTMENT AND ADDRESSES	. 3
PRODUCTION:	
By companies	
Per fatal and non-fatal accident	
Prepared sizes by county By mine, county and capacity	
1873 to 1930, both inclusive	
Counties by month	42
Increase and decrease by counties, 1929-1930	. 43
Coke	
SUMMARY	. 6

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 Includes the following mines in Las Animas County: Anchor, Baldy, Bear Canon No. 6, Beshoar, Boncarbo, Bowen, Cox, Dix, Engle, Fairview, Ferrill, Fishers Peak, Flag, Frederick, Jeffryes, La Belle, Lakeview, Martinez, Morley, Pickford, Pritchard, Santa Fe, Sopris, Tobasco, Thor, Toller and Vigil.
- FINLAY MCCALLUM, Box 334, Aguilar, Colo......District No. 2 Includes the following mines in Las Animas County: Brodhead No. 9, Creston, Davich, Delagua, Empire, Kenneth, Ludlow, New Congo, Rapson and Royal, and the following mines in Huerfano County: Black Hawk, Bunker Hill, Cameron, Mutual, Pryor, Ravenwood and Torrid mines.
- GEO. C. DALRYMPLE, Box 645, Walsenburg, Colo.......District No. 3 Includes the following mines in Huerfano County: Alamo No. 1, Alamo No. 2, Calumet No. 1, Calumet No. 2, Gordon, Kebler No. 2, Maitland, Oakdale, Ojo Canon, Pacific, Toltec and Vesta, and all of the mines in Fremont County.
- HUGO H. MACHIN, 1009 Lincoln Place, Boulder, Colo...District No. 5 Includes all mines in Weld, El Paso, Jefferson, Jackson and Elbert Counties.
- J. B. BURNS, 548 Grand Ave., Grand Junction, Colo...District No. 6 Includes all mines in Archuleta, Delta, Garfield, Gunnison, La Plata, Mesa, Montezuma, Montrose, Ouray, Pitkin, Rio Blanco and San Miguel Counties.

BOARD OF EXAMINERS FOR COAL MINE OFFICIALS, appointed for four years beginning January, 1930, and ending December 31, 1933, consists of :

MR. FRED W. WHITESIDE, coal mining engineer, Denver, Colo. MR. RALPH W. MOORE, coal mine official, Coalmont, Colo. MR. HAROLD WILLIAMS, coal miner, Grand Junction, Colo. MR. THOS. E. LLEWELLYN, coal miner, Silt, Colo.

LETTER OF TRANSMITTAL

Denver, Colorado, March 1, 1931.

To His Excellency,

WILLIAM H. ADAMS, Governor of Colorado.

Sir: Herewith I have the honor to submit to you, in accordance with Section 27 of an Act entitled "Coal Mining Laws," the Eighteenth Annual Report of this Department.

The period covered began January 1 and ended December 31, 1930.

Respectfully, JAMES DALRYMPLE, State Inspector of Coal Mines.

STATEMENT SHOWING RECEIPTS AND DISBURSE-MENTS FROM JANUARY 1ST TO DECEMBER 31ST, 1930.

RECEIPTS

Tax collected on coal mined\$34,888.32	2
From sales of copies of the coal mining laws 195.80)
Refunds 16.07	Ĩ
Balance brought forward from 1929 13,824.72	2
Total	•

DISBURSEMENTS

Salaries of entire department\$	26,060.33	
Fatal accident investigators, per diem and expenses	91.50	
Railroad transportation	620.68	
Automobile mileage	4,664.27	
Board of Examiners	1,484.15	
Printing	377.75	
Postage	636.72	
Stationery and office supplies	327.14	
Telephone service (toll calls entire department)	168.76	
Telegraph service	13.34	
Instruments	66.01	
Express	8.93	
Hotel	896.08	
Meals	1,615.55	
Miscellaneous	652.27	
Total		\$37,683.48
Surplus, December 31, 1930		\$11,241.43

\$48,924.91

SUMMARY OF THE COAL PRODUCTION OF COLORADO FOR 1930

Number of mines operated Number of new and old mines opened: New mines, 7; old mines reopened, 33; total Number of mines closed, 12; abandoned, 2; total Tons of sub-bituminous coal produced2,	275 40 14 $803,164$
Tons of semi-bituminous coal produced. Tons of bituminous coal produced. Tons of semi-anthracite coal produced. Tons of anthracite coal produced. Total number of tons of coal produced. 8,	932,056 49,507 49,281
Decrease, 1930	,923,495 ,296,958 869,110
Tons of slack coal produced	46% 529,811
Tons of coke made Number of days coke ovens were operated Number of coke ovens used Number of men employed at coke overs Number of miners employed—pick miners, 3,768; machine miners, 3,425; total	458,443 309 295 ¹ / ₂ 76 7,193
Number of men employed in and about mines (average) Average number of days worked (man days) Daily production per miner, tons Annual production per miner, tons Number and type of Safety Lamps used—flame, 516; electric, 9,996; total	$10,683 \\ 164.6 \\ 6.9 \\ 1,145.3 \\ 10,512$
Number of carbide lamps used *Number of pounds of carbide used (approximate) Number of pounds of black powder used	3,106 83,381 ,158,422 536,990 68,873
Number of men killed—underground, 33; surface, 3; total Number of men injured Number of men killed per thousand 300-day workers Number of men killed per thousand employed Number of men injured per thousand employed	$36 \\ 1,522 \\ 6.15 \\ 3.38 \\ 142.47$
Number of tons of coal produced for each life lost Number of tons of coal produced for each non-fatal accident Number of men employed per fatal accident Number of men employed per non-fatal accident Number of men killed per million tons of coal produced	$228,836 \\ 5,413 \\ 296.75 \\ 7.0 \\ 4.37$
Number of men injured per million tons of coal produced Number of widows left Number of children left fatherless *A number of the mines did not report the carbide used as a	184.75 24 60 same was

 $^{\ast}\mathrm{A}$ number of the mines did not report the carbide used as same was furnished by the employes.

INTRODUCTION

The Eighteenth Annual Report of the State Inspector of Coal Mines is everything but encouraging for the Coal Mining Industry. However, it is reasonably satisfactory from the standpoint of this Department which was created for the purpose of safeguarding life and property, but there is still room for improvement and every effort possible should be made to reduce the number of accidents in our coal mines. The following tables will give you a short history of this Department since the present laws were enacted in 1913.

		STATE	OF COLO	RADO		
Year	Tons of Coal Produced	No. of Men Employed	No. of Fatal Accidents	Killed Per 1000 Employed	Tons Coal Produced Per Fatal Accident	Total No. of Mines State
$\begin{array}{c} 1913 \ldots \\ 1913 \ldots \\ 1914 \ldots \\ 1915 \ldots \\ 1916 \ldots \\ 1917 \ldots \\ 1918 \ldots \\ 1919 \ldots \\ 1919 \ldots \\ 1921 \ldots \\ 1922 \ldots \\ 1922 \ldots \\ 1924 \ldots \\ 1924 \ldots \\ 1925 \ldots \\ 1926 \ldots \\ 1928 \ldots \\ 1928 \ldots \\ 1928 \ldots \\ 1929 \ldots \\ 1920 $	$\begin{array}{c} 9.268.939\\ 8.201.423\\ 8.715.397\\ 10.522.185\\ 12.515.305\\ 12.658.055\\ 10.406.543\\ 12.514.693\\ 9.141.947\\ 10.003.610\\ 10.336.735\\ 10.501.088\\ 10.440.387\\ 10.616.760\\ 9.781.580\\ 9.921.585\\ 9.934.064\\ 8.238.094 \end{array}$	$\begin{array}{c} 12,871\\ 10,596\\ 12,563\\ 13,315\\ 13,970\\ 14,374\\ 12,799\\ 13,665\\ 14,164\\ 13,436\\ 13,277\\ 12,703\\ 12,228\\ 11,453\\ 11,474\\ 11,196\\ 10,683\\ \end{array}$	$\begin{array}{c} 110\\75\\64\\44\\188\\71\\91\\70\\52\\74\\66\\44\\57\\52\\54\\35\\53\\36\end{array}$	$\begin{array}{c} 8.6\\ 7.0\\ 5.1\\ 3.35\\ 13.5\\ 4.94\\ 7.1\\ 5.1\\ 3.6\\ 5.51\\ 4.97\\ 3.48\\ 4.66\\ 4.42\\ 4.7\\ 3.05\\ 4.73\\ 3.38\\ \end{array}$	$\begin{array}{c} 84,263\\ 109,352\\ 136,178\\ 239,095\\ 66,571\\ 177,578\\ 114,357\\ 178,781\\ 175,507\\ 135,184\\ 156,617\\ 238,661\\ 183,165\\ 204,168\\ 181,140\\ 283,474\\ 187,435\\ 228,836\end{array}$	$\begin{array}{c} 178\\ 188\\ 199\\ 219\\ 238\\ 249\\ 241\\ 231\\ 249\\ 275\\ 276\\ 276\\ 276\\ 276\\ 261\\ 266\\ 266\\ 266\\ 266\\ 266\\ 266\\ 26$
Average.	10,206,577	12,574	68.7	5.46	148,568	246

	MINES 1	EMPLOYIN	G 1 TO 5 1	MEN, INCL	USIVE	_
Year	Tons of Coal Produced	No. of Men Em- ployed	No. of Fatal Accidents	Killed Per 1000 Employed	Tons Coal Produced Per Fatal Accident	No. of Mines
$\begin{array}{c} 1913 \dots \\ 1914 \dots \\ 1914 \dots \\ 1915 \dots \\ 1916 \dots \\ 1917 \dots \\ 1518 \dots \\ 1919 \dots \\ 1520 \dots \\ 1921 \dots \\ 1922 \dots \\ 1923 \dots \\ 1923 \dots \\ 1924 \dots \\ 1925 \dots \\ 1926 \dots \\ 1926 \dots \\ 1927 \dots \\ 1928 \dots \\ 1928 \dots \\ 1928 \dots \\ 1929 \dots \\ 1930 \dots \end{array}$	$\begin{array}{r} 42,399\\ 50,001\\ 50,304\\ 70,815\\ 71,969\\ 77,058\\ 87,065\\ 94,586\\ 94,422\\ 98,923\\ 112,484\\ 120,344\\ 120,344\\ 137,780\\ 105,506\\ 113,674\\ 131,914\\ 115,833\\ 135,853\\ \end{array}$	$\begin{array}{c} 82\\ 129\\ 144\\ 144\\ 129\\ 177\\ 194\\ 188\\ 218\\ 253\\ 256\\ 325\\ 230\\ 263\\ 252\\ 261\\ 342\\ \end{array}$	2 3 1 2 0 0 2 1 3 2 0 5 5 0 1 0 3	$\begin{array}{c} 24.4\\ 23.26\\ 6.94\\ 13.89\\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ $	$\begin{array}{c} 21,199\\ 16,667\\ 50,304\\ 35,407\\ \\ \\ \\ \\ \\ 47,293\\ 94,422\\ 32,974\\ 56,242\\ \\ \\ \\ 27,556\\ 21,101\\ \\ \\ \\ \\ 131,914\\ \\ \\ \\ \\ 45,284\end{array}$	$\begin{array}{c} 23\\ 41,\\ 49\\ 65\\ 52\\ 63\\ 72\\ 71\\ 83\\ 95\\ 106\\ 111\\ 132\\ 105\\ 110\\ 116\\ 117\\ 147\\ \end{array}$
Average.	95,052	213	1.67	7.84	56,917	86.5

You will note by the preceding tables that, although there was a decrease of 1,695,970 tons in the production over that of 1929, there was produced 228,836 tons of coal for each life lost in 1930 as compared with 187,435 tons of coal produced in 1929, and that the death rate per 1,000 employed in 1930 was 3.38 against 4.73 in 1929. The death rate per thousand 300-day workers in 1930 was 6.15 against 7.80 in 1929. You will also note by the above tables that there was an increase in the production, number of mines, number of men employed and number of men killed in the mines employing from one to five men inclusive over that of 1929, and also over an eighteen year average, which would indicate, if statistics are correct, that the supervision and laws governing the smaller mines should be more stringent.

The coal mine inspection department is maintained by a coal tax, based upon the coal production. In 1930 there was a decrease of 1,695,970 tons of coal over that of 1929. The tax collected from coal mined during 1930 would amount to \$32,952.38. The total expenditures from January 1st, 1930, to December 31st, 1930, were \$37,863.48, leaving a deficit of \$4,731.10 to which should be added \$769.00 for printing the 1929 Annual Report which was paid for from money derived from advertising in former annual reports, making a total deficit of \$5,500.10 for 1930.

From present indications, the outlook for the coal business in 1931 is worse than in 1930, and as our only means of income is from the coal tax, one deputy inspector will have to be laid off in the very near future and if there is no material increase in production in the next four or five months, another inspector will have to be laid off.

If the State Inspection of Coal Mines has to any material extent been responsible for the making of coal mines more safe to work in, then something must be done to take care of the finances of this department as the expenditures are greater than the income, or income necessary to adequately take care of proper inspection of the coal mines of this state. Furthermore, the requirements of the present mining laws require that all coal mines be inspected every ninety days and this cannot be done with our present income.

It is the general opinion that the tonnage produced should govern the amount of inspection, that is to say, that when the mines are working steady and producing normal production, more inspection is needed than when mines are working half time with half normal production. This opinion, in my judgment, is entirely wrong. When mines are working steady, the owners are making at least a fair return on their investment. To keep the production up the mines must be kept in repair. There is no trouble in getting the money to do this at such times. With steady work, the minds of the workers are on their work. They exercise more care in doing their work. When the mines are only working half time the owners are not making any money, they refuse to spend any on repair work and the employes become indifferent and careless with the result that the death rate per 1,000—300-day workers increases. It has been my experience that the times when inspections are most needed is when the production is above normal, and when everybody is being pushed for more coal and also when the production is below normal, and the owners fail to allow funds to keep the mines in shape and the employes are dissatisfied and indifferent to their own safety.

There is a bill now before the legislature seeking to amend the Coal Mining Laws. Two of the principal amendments are in regard to the mines employing five or less men underground. One of them is to exempt the mines employing five men or less underground from the state inspection and the other is exempting them from paying a coal tax. Morally both of the amendments are wrong, but the Twenty-sixth and Twenty-seventh General Assemblies are responsible for their being, as they exempted the five-men mines from employing certified men and having to install ventilating fans, while the large mines were paying 95% of the cost of inspecting the five-men mines whose fatality record for a period of eighteen years was 40% higher than that of the state as a whole.

There were thirty-six lives lost in and around the mines of Colorado in 1930. A decrease of seventeen lives or nearly 32% compared with 1929. To somewhat offset this decrease we employed nine per cent less men, produced 17½% less coal and worked 22% less time, but comparatively speaking there is some improvement as stated above. Thirty-three of the thirty-six deaths were underground. Eighteen, or 55.6% of them were from falls of rock and coal. Sixteen of the eighteen were at the face and of these sixteen, ten of them were at the roadheads. Compared with 1929, the deaths from falls of rock and coal were reduced 13% and the roadhead accidents were reduced 24.4%.

Thirteen fatal accidents or 38.24% of the total underground fatal accidents were from haulage against eight or 15% in 1929, an increase of 120%. Twelve of the thirteen were from mechanical and one from animal haulage, including one of which was on the surface.

Two, or 6%, were from electricity, compared with four, or 8%, in 1929, a decrease of 25%. One fatal accident is classed as miscellaneous and the remaining two on the surface.

In 1930 there were 147 mines where five men or less were employed. These mines employed 342 men and produced 135,853 tons of coal. Their fatality rate per 1,000 employed was 8.77. The number of tons of coal produced per life lost was 45,277. Comparing this with the state as a whole, the mines employing five men or less killed two and one-half times as many men per 1,000 employed as did the state, and produced only one-fifth as much coal per life lost as did the state as a whole.

It is proper to believe that a stricter enforcement of the

timbering agreements and setting of roadhead props by the mine foremen and their assistants is to a great extent responsible for the decrease in the number of accidents from falls and it is to be hoped that they will put forth the same effort to reduce the accidents from haulage. There are probably more ways that accidents can happen from haulage than there are from falls, consequently more effort will be required to get the results we got from falls, but the task is a worthy one and deserving of all the consideration that can be given it.

The fatal accident reports by the deputy inspectors stated that five of the haulage accidents were from runaway cars. Six from being crushed between cars and ribs or timbers, and two between cars and working faces. All of the above haulage accidents happened on mechanical haulageways, either through cars being bumped over safety blocks or becoming detached or derailed. Of the two remaining, one was kicked by a mule and one was caught between rope and sheave wheel on the surface.

The above information on haulage accidents is given so that the mine officials and state inspectors may know better the remedies and where to apply them and that the workers may know and be more careful in the handling of cars and getting on and off the cars while they are in motion and last, but not least, that the owners may know where, why and how such accidents happened and issue instructions to their mine officials that the conditions and practices responsible for them must be remedied and abolished as soon as possible and not fail to see that such instructions are carried out. The latter recommendation is the most important of all as without it very little, if any, improvement can be expected.

The following is a summary of the work done by the field force of this department during the year:

Total inspections made in 1930	
Total number of mines inspected	
Number of fatal accidents investigated by inspect-	
ors and special investigators	
Number of inquests attended by inspectors and	
special investigators	
Scale inspections	
Complaints investigated and adjusted	
Prosecutions 1	
Miles traveled by auto	
Railroad scrip used\$620.68	

In conclusion I wish to extend my thanks to the field staff for the loyal support rendered the department, also to the operators for their co-operation in carrying out the recommendations requested by the inspectors.

Respectfully submitted,

(Signed) JAMES DALRYMPLE,

State Inspector of Coal Mines.

NEW MINES

Seven new mines were opened up during the year, six are small wagon mines, but the Morrison mine, by the Clayton Coal Co., is laid out on a large scale. It is located near Erie, Weld county. Mr. George Morrison, owner and general manager of the property, has made every effort to put this mine on the most modern and efficient basis. The following detailed equipment will show that no improvement has been overlooked to make this property up to date in every way.

One shaft, 168 ft. deep, 8 ft. 4 in. x 16 ft. Two Robert E. Holmes self-dumping cages, 18,000 lbs. each. One tipple, 67 ft. high.

Two sheave whels, diameter, 6 ft. One main railroad screen, 72 ft. long, 7 ft. wide, covering four railroad tracks, making 5 kinds of coal; automatically controlled and run by G. E. Motor, 30 h. p., 440 a. c.

motor, 30 h. p., 440 a. c.
One Custom Screen, 30 ft. long, 6 ft. wide, making four kinds of coal and is driven by 25 h. p. A. C., automatically controlled. (G. E. motor.) Two Ottumwa Box Car Loaders; one for loading lump in box cars, run by 20 h. p. G. E. motor, 440 A. C.; one for loading nut in box cars, run by 10 h. p. 440 A. C. G. E. motor.
One Jeffrey Coal Elevator, delivering slack from crusher and slack screen to main screen; capacity 200 tons per hour; 40 ft. high; run by 16 h. p. 440 A. C. automatically controlled G. E. motor.
One 800 h. p. Vulcan steam hoist, 22x48 first motion, two cylinder, double cone drum, 6½x8½ diameter, steam controlled reverse, hand operated pinch type double post brake (1½ in. rope on drum), equipped with A. E. Johnson automatically controlled overwind and man hoisting control. One Shuse steam engine, 18 ft. x18 ft., direct connected to a G. E. 150

A. E. Johnson automatically controlled overwind and man hoisting control. One Shuse steam engine, 18 ft. x 18 ft., direct connected to a G. E. 150
k. w. 250 volt generator, 250 r. p. m. Three H. R. T. boilers, 150 h. p. each. One smokestack, 16 ft. diameter at base, 8 ft. diameter at top, 125 ft.
high, and self-supporting; breaching leading from boilers to stack, 82 ft.
long; 4 ft. x 10 ft. at big end, 4 ft. wide, 2 ft. high at boiler end. One boiler room, 44 ft. by 64 ft. by 18 ft. high. One mine office, 18 ft. by 44 ft. by 8 ft. high, including one main office room 18x18; one hospital room 12x18; one private room 10x18; one

hall 4x18 ft

One blacksmith shop, 18x18 ft. One Webster Coal Crusher, capacity 50 tons per hour. One Fairbanks mine hopper scale, capacity five tons.

One storage water tank, l6x18 ft. One deep well 500 ft. deep, 3-inch working barrel. One Cameron steam boiler feed pump, 3-inch discharge. One 5x5 in. Denning Electric Piston Pump, delivering water to surface. One sullivan Iron Clad undercutter mining machine. One small electric motor hoist, 5 h. p. G. E. 440 motor.

Fiddlin Bill, the next largest mine to open up is in Montrose county, near Naturita. It was financed by the Rare Metals Corporation, with Mr. Frederick F. Kett, as general manager and is equipped for a 40-ton daily capacity. A 50-ton bin and a blacksmith shop were built and a ropeway installed. The cost to date was about \$10,000.00 and the product is intended for the mill this company runs and local trade. The coal is classified by the company as bituminous and there is no railroad connection.

The Pluto Mine was opened up by the Domestic Coal Co. with Geo. C. Watson as owner and manager. It is located in Boulder county halfway between the Industrial and Crown mines and the postoffice address is Boulder. The cost of the development so far is \$8,736.60 and \$5,000.00 additional will be spent during the coming summer to erect a modern tipple. The company plans to equip the mine for a 100-ton daily capacity. To date there is no railroad connection.

The New Pollard Mine, opened up by C. F. Pollard, is located in Meeker, Rio Blanco county, and is a very small property, costing about \$1,000.00 and is intended for local trade only.

The Jone's Mine, opened up by R. C. Jones, close to Bear River, Routt county, at a small outlay and equipped for a 15-ton daily capacity and supplies a wagon trade.

The Superior Mine, opened up by H. J. Smith near Florence, Fremont county, is developing a small coal acreage to meet local trade.

The New Fremont Mine, opened up by the Giuliano Coal Co. near Coal Creek, Fremont county. No data was furnished this department, consequently we do not know what the extent of this property will be.

IMPROVEMENTS

There were a few major improvements made during the year, The Crested Butte Mine, operated by the Colorado Fuel & Iron Co., electrified the inside of this mine with seven mining machines, one locomotive, and five hoists. Installed 350 new pit cars, graded and retied all rope haulage. Installed two new boilers and three 150 KW generators. Electrified tipple and fan and increased side track capacity.

The Oliver Coal Co. completed a standard gauge railroad track, erected a new steel tipple, installed a new hoist and put in 32 new pit cars. A new office building was also built.

At the Morley mine operated by the Colorado Fuel & Iron Co. electric trolley locomotives were installed which had the approval of the State Inspection department. In connection with this installation the mine was thoroughly rock dusted.

Most of the mine equipment purchased and improvements made were at small mines. Eighteen tipples were erected, seven scales, 355 electric lamps, four fans, five shaker screens, fourteen steam and electric hoists and nine cutting machines installed. Three new boilers and 130 pit cars were purchased. Several pumps, nut coal washers, air compressors, motors, scales and box car loaders were installed.

The Temple Fuel Co. reported improvements costing \$17,639.00 and the Vickers Coal Co. spent \$10,673.00. The improvements made were not enumerated.

SOUTHWESTERN MINE EXPLOSION

On February 7, 1930, Deputy Inspector Finlay McCallum was advised that an explosion had occurred at the Southwestern mine on February 5th at 5:30 P. M. On February 8th, Inspector McCallum went to the mine and found both portals partially closed, with explosive gas issuing from fan openings.

On February 12th and 13th, accompanied by Mr. Denny and Mr. Kintze, of the United States Bureau of Mines, Inspector Mc-Callum and a few helmet men, the underground workings were explored for a distance of 1,000 feet in main opening and all workings off main opening. No bodies were found. However, upon coming out of the mine some of our party thought they detected offensive odor coming from under a fall of rock. A week later another investigation proved that there were no bodies under the fall.

The Southwestern mine had been abandoned for about two years and during that time had filled up with explosive gas until it was issuing from the mine in considerable quantity.

It is our opinion that the explosion was caused by someone on the outside of the mine igniting the gas with an open flame at a point where the gas was inflammable but below the explosive point.

Upon inquiry we failed to find any evidence of anyone missing or injured in the mining towns or coal camps within a radius of twenty miles from the mine.

Both openings have been closed by caving, properly fenced off and danger signals posted at proper points.

REPORT ON OPENING OF FIRE SEALS AT NEWCASTLE MINE

The Newcastle mine at Newcastle, Colo., was sealed in October on account of fire. On December 29th, 1930, accompanied by E. H. Denny, Geo. B. Parker, Thos. Templeman and J. B. Burns, we went to the mine to open the seal in the tunnel for the purpose of determining whether or not the fire was out. Eighteen hours after this seal was broken, the fire was burning briskly so the seal was again closed.

FIRST AID AND MINE RESCUE WORK IN 1930

The Training Stations here given trained the following number of men in First Aid and Mine Rescue work:

COLORADO FUEL & IRON CO.

Mine	First Aid	Mine Rescue
Morley	1 0	0
Frederick	63	0
Toller		0
Cameron		0
Robinson No. 1		0
Pictou		0
Kebler		0
Rockvale		0
		0
Crested Butte	10	10

VICTOR-AMERICAN FUEL CO.

Chandler Mine.		Mine Rescue
Delagua Mine. Wadge Mine. Pinnacle Mine.	66	$\begin{array}{c} 20\\ 5\\ 10 \end{array}$
McNEIL COAL CORP. MacGregor Mine	23	0
BEAR RIVER COAL CO. Bear River Mine	52	5
PINNACLE KEMMERER P-K Mine	71	5
COLORADO & UTAH FUEL CO. Harris Mine	231	10
MOFFAT COAL CO. Perry Mine	124	10
KEYSTONE COAL CO. Keystone Mine	40	5
HAYDEN COAL CO. Hayden Mine	133	0

ROUTT COUNTY COAL OPERATORS' ASSOCIATION "FIRST AID CONTEST"

The Second Annual First Aid Contest of the Routt County Coal Operators' Association was held at Oak Creek, Colorado, on September 4th, 1930. There were six teams entered, with the following results.

A Mine Rescue Team was selected from the Moffat and Pinnacle mines.

The team winning first prize received a Trophy Cup presented by the Routt County Coal Operators' Association, this cup to be held until the next Annual Contest at which time it will again be presented to the championship team. The team winning first prize will also represent Routt County in the State Meet. The winning team also received a basket of flowers presented by K. G. Yama, \$20.00 presented by Dr. Jefferson of Steamboat Springs, Colo., each team member received a \$5.00 gold piece given by the town of Oak Creek, an individual automobile "first aid" packet from the association and a pocket knife presented by the Lions Club.

Teams winning second and third place were each presented with Automobile First Aid packets, pocket knives, as did those members in the winning team, besides each member of the team winning second place received three dollars each and those on the team winning third place received one dollar and fifty cents each.

Each of the other participants, not mentioned above, were given an Automobile First Aid packet, presented by the association, a pocket knife presented by the Lions Club and one dollar each presented by the Employers Mutual Insurance Co.

The following men put on a "Mine Rescue" demonstration.

George Koler	Pinnacle	Mine
James Reary	Pinnacle	Mine
Don Young		
Joe Matthews, Jr.		
Edward Gibbney	Oak Hills	

LEGAL OPINION

May 26, 1930.

Mr. James Dalrymple, State Inspector of Coal Mines, State Office Building, Denver, Colorado. Dear Sir:

In reply to your letter of the 19th inst., in reference to the question as to whether you are compelled by law to employ another Deputy Inspector to fill the vacancy caused by the resignation of Deputy Inspector Thomas Allen, to take effect June 25, beg to advise that, in our opinion, you are required by statute to employ six deputy inspectors at all times.

Sec. 3465, C. L. 1921, provides :

"The chief inspector is hereby authorized and **directed** to divide the state into six inspection districts, dividing the work of coal mine inspection as nearly as possible into six equal parts."

Sec. 3466, C. L. 1921, provides:

"Each deputy inspector of coal mines **shall** be assigned to **one** of the **six** coal mining districts of the state; he shall reside in his district and shall devote his entire time to the duties of his office." Sec. 3471 provides:

"When a vacancy occurs in the office of deputy inspector, the chief inspector of coal mines **shall** fill the same by appointment from the names on the certified list on file in the offices of the chief inspector of coal mines and the secretary of state."

From the foregoing it is clear that six public offices were created by the coal mine inspection act, in addition to the one of chief inspector, and the general rule is that a public office must be filled. We have no doubt that should you fail to fill this vacancy, the person whose name is first on the list for deputy inspector could compel his appointment by suitable court action.

Very truly yours,

ROBERT E. WINBOURN, Attorney General. By FRED A. HARRISON, Assistant Attorney General.

NUMBER INJURED IN COAL MINES DURING THE CALENDAR YEAR ENDING DECEMBER 31, 1930

	nt ity	nt illity	((Temp Disal	orary	
CAUSES	(A) Permanent Totál Disability	(B) Permanent Partial Disability	Time Lost More Than 14 Days	Time Lost Less Than 14 Days	Total Injuries
Underground 1. Falls of roof (coal, rock, etc.) 2. Falls of face or pillar coal 3. Mine cars and locomotives 4. Gas explosions and burning gas 5. Coal-dust explosions (including gas and dust combined) 6. Explosives	· · · · · · · · · · · · · · · · · · ·	···22 22 ······33 ··6	$ \begin{array}{r} 151 \\ 99 \\ 211 \\ 6 \\ \\ \\ \\ 6 \\ 23 \\ 54 \\ 54 \\ 195 \\ \end{array} $	97 80 145 2 27 41 240	248 181 358 6 4 98 98 441
 In Shaft: 13. Falling down shafts or slopes 14. Objects falling down shafts or slopes 15. Cages or skips 16. Other causes Total number injured in mine On Surface: 17. Mine cars and mine locomotives 18. Electricity 	· · · · · · ·	$\frac{\cdots}{13}$	$ \begin{array}{c} 1 \\ 1 \\ \overline{749} \\ 16 \end{array} $	 639 5	1 1 1,401 21
 Electricity Machinery Boiler explosions or bursting steam pipes Railway cars and locomotives. Other causes. Total number injured on the surface Grand Total. 	··· ··· ···	$\begin{array}{c} \cdot \\ \cdot \\ 1 \\ 1 \\ -3 \\ 16 \end{array}$	$ \begin{array}{r} 12 \\ 1 \\ \frac{35}{64} \\ \overline{813} \end{array} $	 	21 1 73 121 1,522

A. PERMANENT TOTAL DISABILITY. Loss of both legs or arms, one leg and one arm, total loss of eyesight, paralysis or other condition perma nently 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.

DIRECTORY OF COAL MINES IN THE STATE OF COLORADO FOR THE YEAR ENDED DECEMBER 31, 1930

		1								Kind o and	of Opening 1 Pitch			
Nation of Company	Name of Mine	Pagata	Nam of Manager or General Superintendent	Fost Office of Company	Same of Mine Superintendent	Post Office of Mine	Railroad to Mine	Z PRO-MEDICOLINA COMPOSING DA	Shaft Depth	Le nuth of Slope	Pitch	La ngth	Method of Ventilation	Average Thickness of Seam
T. La Car Paras Bros Harrington Cont Co	Payou	Archolets Archolets Archolets	Julin Payan A. L. Harrington	if igous Springs Arbides Milson Doby	T L. Cox	Pagesa Springs Vriales Milson Dyke	None None None None	Non-gaseous Non-gaseous Non-gaseous Non-gaseous		250	1 c	Drift Drift	Natural Natural Natural Natural	5 5 12 10
Chas McRroom Bocky Mountain Fuel Co Rocky Mountain Fuel Co Rocky Mountain Fuel Co	Mettroom Vulexn Industrial Standard	Archulr to Boulder Houlder Roulder	Chao MelBoom M. D. Vincent M. D. Vincent M. D. Vincent	Denver Denver Denver	H. R. Unwin Thos, Gibby Scorge Sweatlager	Buperlor Bafavette Breanfield	CAS CAS CAS CAS	Gancous Non-калеоца Gancous Non-колеоця	205 205 281 273				Mechanical Mechanical Mechanical Mechanical	414 10 1 B
National Dust Co David Allan Centeenhall Coul Co _ Black Diamond Dust Co	Monatch Crawo Central d Black Dlamond	Rouber Roulder Roulder	The Public Theory and Albert Street Newbork and Albert Alb	Garious Louisville Houldet	Wm, Andrew Som Atkins	Gorinon Leotaville Heulder Leotaille	CAS CAS None CAS	Non-gaseous Claseous Non-gaseous Non-gaseous	171	300	1.		Mechanical Mechanical Mechanical Mechanical	5 6 - 7 6
Louise Dis-Lafayette Coal Co Examenile Coal Co Domestic Coal Co High Yiew Coal Co.	HI-WAY Gorbain Philo High View	Houlder Bouhler Bouhler Doulder	La Elberharter Geo Watson - rico Watson -	Roulder Roulder Roulaer Gorham	James Wordle	Roubler Boubler Gerham Gerham	CAS None,	Non-gaseous Non-gaseous Non-gaseous	+	450 245 200 150	17* 36* 10*	**************************************	Mr chanleal Natural Natural Natural	41 10 6 2 8 10
Port Coll Co Tony Alizardo Niw Rase Cont Co Tony Asbriella Fitteburgh Cost Co	Rocky Ridge Nurfee Loss Physicality Physicality	Roulder Roulder Houlder Boulder Souper	James J. Nunn	Corham Moraball Gorham Gorham Gorham	Tony Giranio	Matshall. Ootham Gotham Gotham	None None None None None	Non-gaseous	-	154	4.1%	40 140 660 200	Natural Natural Natural Natural	6 10 7 6 6 4 9
Juanita Coal A Coko Co Green Valley Coal Co Red Canon Coal Co Pangla Farmere Coal Co	Ning Onen Valley Hert Canon Pannia	Delta Delta Delta Delta	J. S. Bowle	Bowle Codaredge Cedaredge Phonia	A. R. Bowle	Howle Cedaredge Cidaredge Facila Ordaredge	D & R, G W	Non-gaseous Non-gaseous Non-gaseous Non-gaseous Non-gaseous		5055 215 500 50	6% 2236° 1%*	200	Mechanica) Natural Natural Natural Natural	11
Independent Coal Co States Hall Coal Co States Hall Coal Co States Hall Coal Co	Independent,	Dolta	A W Hall	Crdaredge Codaredge Cedaredge Hatchiciss	C B Bull.	Ceilatedce Ceilatedce Hotelikika Ausilio	None None None	Non-gaseous Non-gaseous Non-gaseous		800 300	6% 6%	700 2000	Natural Natural Natural Natural	72 to 14
Winton Cost Owrni & Sons T. M. Vowell New My Steel Lumber Co	Winton Gwens Braus Creek North Star	Delta Delta Delta Delta	J C Howernan Bowland Owerna John Zalalia	Austin Holchkizz Hotekkizz McPher	T. M. VOWELL and a second	Hotchiciss Hatchiciss McPhee Mathy son	None Combaay owned	Non-ganeous Non-ganeous Non-ganeous Non-ganeous		583 80 450 125	1%	25	Natural Natural Mechanical Mechanical	
Marcot Cost, Oll & Chy Co., Wright Barker Pikes Peak Duel Co., Cotorndo Springs Co.,	Marcol Wright	Elliert. Etlerti El Paso El Paso	C 14 Williams	Colorado Springs Mailo zon Colorado Springs Culorado Springs	Wright Barker	Statle son Pikevlew Colurado Springs	None D, & R, G, W,	Non-gaseous	Strip 412	Pit 174 2100			Mechanical Mechanical	7 to 43 5 6 to 13 6 to 20
Corley Coll Co	Corley	El Paso	W D Corley	Colorado Springa Colorado Springa Colorado Springa Colorado Springa	Thes, Bite ay	Colorado Springa Colorado Springa Colorado Springa Colorado Springa	None None	Одвебня	288	200 100	33%	900	Mechanical Mechanical Mechanical	6 to 7 5 10 3 10
Thomas Mining Co. Domnan Coni Co. Golden Duvo Coal Co. Vicint-American Extel Co	Binmy Camp	El Paso El Paso El Paso El Paso Fremont Fremont	N. A. INC R. H. Wayd C. W. Irvine, See's B. W. Snodgraum. R. L. Half	Colorado Springa Colorado Springa Colorado Springa Denver Puchio	Frid Sevelk	Colorado Spring Colorado Spring Yeder Unandier	None None D & R O. W A. T. & S. F	Non-gansoun Non-gansoun Gascouv	50 462 400	37 07(0002	30"	700	Natural Natural Natural Mechanical Mechanical	3 10 0 5 6 4 8
Colorado Fuel & Iton Co Colorado Fuel & Iton Co Cunon-Rellance Coal Co Buff Springs Lenaing Co Buffiling Coal Co	Nonne Canen Riuff Springs No 3 Bluff Springs No 3	Premotit Premotit Premotit	R L Halr	Pueblo C inna City Floreare Coal Creek	W. J. Davin Nicholas Richards James L. Newell. John Glutinno	Canon City Canon City Florence Coal Creck	A. T. & S. F. A. T. & S. F. A. T. & S. F. None	Одагоци	1086	4300 1600 2000	1675 7 33 ³ 675		Mechanical Nechanical Mechanical Mechanical	1 4" to 6 1 6 3
Giultano Coal Co Orrecchio Cual Co Double Dick Coal Co. Canon Universial Coal Co	New Fremontal Brookside Double Dick Canon Imperial	Promont Promont Promont Promont	Prank Oreceblo	No Report Filed Flotrate	Thomas Orecetilo	Brookside	None	Non-gaseout Non-gaseous Non-gaseous		1200 500 2000	6 %		Mechanical Mechanical Mechanical	2 8 7
Griffithe Coal M Co Canon Quality Coal M, Co Beer Coal Co Elleworth Chann Coal Co	Grimme South Magnet Jack O'Lantern Ellisworth	Fremont	Wincenting Yonso	Canon City	W. R. Grimths	Canon City Rockaste Fintonce Conce City	None	Non-gaacous Non-gaacous Non-gaacous		1200 850 150	45%	никаланат ()) актичена, роки амперията, калка простотът ()	Mechanical Mechanical Mechanical	- 3 10 - 2 2
Bocchio Coal Co. Canon District Coul Co Perior Coal Co James Bross Dicl Co	Horehlo Canon District No 2	Premont Premont Premont	21 227 7 2 2	Conf Creek Canon Cliv. Plorence	James Rocchio	i Coal Crick Canon Clly Flarence Florence	A. T. & S. F. None A. T. & S. F. None	Non-guasous Non-guasous Non-guasous		500 580 200 400	285	500	Mechanical Mechanical Mechanical	
Canon Coal M. Co F. Y. Bloom Paul Carettio	Herwaler Neulan Willie No, 1 Superfor	Premont Premont Premont Premont	Mine Cierce =	No Report Filed Florence	F V Hoom Paul Caralba H. J Smith	Plotence	None None	Non-gramman Non-gramman Non-gramman	165	132	5 1 1	30	Mechanical Natural Natural	
New Custle Coal Co., Gillion Asplinitum Co. South Cinon Mine Last. Co., Bifer Coal Mines, Inc. Radiman Coal Co.	New Castle Curbaneou South Conco North Conco Ruoman	Gartleld Gartleld Gartleld Gartleld Gartleld	W. G. McDonald Homer D. Ford W. E. Coles - Chus, Rouman	Glenwood Springs Watson, Fitah Gleawood Springs Rid- Rid-	W E Coless Jas, B Rennett J E. Ford Arthur Holm e	Glenwood Springs Maek Girawood Springs Bilo Hitto	None Dintah None None None	Ourrous Non-ganeous Oberous Oberous Oberous			52 %	500 2300 2000 2200	Mochanical Mochanical Mochanical Natural Mochanical	
Nargan Coul Co Crumpley & Sons Frank De Hoy Henry Zlearntw Augenta Heliosh	Slift Slief seero Obkenut Sliefendas Parcellae	Garfield Garfield Garfield Garfield		840 Rifle Ghenwood Springs Rifle Ghenwood Springs	Rees Liewellyn P. H. Crumdes Prink De Bay Henry Zlewalse Angela Bellodl	slit Rifle Olenwood Springe Rifle Olenwood Springe	None None None None	Non-яражоця Оджерця Non-ярахерця Non-ярахерця Non-ярахерця	1		- 1446 - 1466 -	317 		
Calumet Port Co Columida (1914) A Iron Co Olfert Coal Co Columbia: Anthracite Co	Some mel Created Butte Office Morie	Gunnleon Gunnleon Gunnleon Climiteon	Wm Mnorthend B. I., Huir Clintos I., Oliver C. I., R	Price, Utah Pushic Paonis Created Builte	Rohl, Williams, Jr D. F. Miller R. C. Oliver	Botherset	D & R. G. W D & R. G. W. D & R. G. W. D & R. O. W. D & R. O. W. D, & R. O. W.	Gaseous Gaseous Bairous Gaseous Non-gueous		4000 (1000 1100		6000 4000 2600	Mechanical Mechanical Mechanical Mechanical Mechanical	
Cr. tel Bultz Coal Co Bocky Muunisto Part Co, Ohto Creek Co I Co Casth R ek Coal Co	Hulkl y No. 2 Mplaz Olita Ciss k Cissiliz Rock	Ganalion	J. M. Puge	Denser Denser Gunntson Gunnlson	J. J. Melniyre James Jordan Geo D. Manville	Baldwin. Gunnizon Bonnizeu Boldwin	DARGW. DARGW. DARGW None DARGW	Non-g treats Non-g treats Non-g treats Non-g treats	152	3000 200	4 mg	\$00	Mechanical Mechanical Natural	534 to 10
Baldwin Fuel Co Bichardson Cost Co Colorado Fuel & Iron Co Colorado Fuel & Iron Co	Pablwin Stat Busteriawit	Gannison Gannison Ruccfann Ruccfann	R. La Hair	i Denver Gunnlion Pucblo Ducblo	James Hare (Contractor) Clyde Slok= J 1. MeBrayer J 1. McBrayer	Gunniws) Walson Flefou	None DAROW.&C&S DARGW	Non-grocous Gascous Gascous		180 7900 8080	5 3, 70	000	Matural Natural Mechanical	5 to 8
Colorado Diel & Iron Co Colorado Diel & Iron Co Calumit Diel Co	Calumet No. 2 Calumet No. 2 Calumet No. 2	Hurdano Hurdano Hurdano	R 1, Itale R 1, Itale Whit Moorload Whit Moorload	Pueblo Pueblo Priez, Utab	S. S. Trimple P. O. Willson Jas. R. Cameron	Furr Tioga Delearbon Delearbon	C & S D & R G. W D. & R G. W D. & R G. W	Цалоня Паноця Паноця Саноця		2000 6010 6000 3200	5 °	· · · · · · · · · · · · · · · · · · ·	Michaelal, Michaelal, Michaelal,	\$ to \$ 6 746 to 6 745 to 6
Alamo Coal Co Batheur Coal Co Oakdate Coal Co Calleote Coal Co	Alamo No. 1 Marah No. 2 Oskilale Basenwood	Elucitatio Elucitatio Haritatio Elucitatio	W & Cletchall W & Cletchell W & Cletchell S M Thompson	Alamo Alamo Oskview Ravensood	James Hamilton James Hamilton W S. Morgao S M. Thompson	Alamo Alamo Oskylew Rayenweod	DARGW&C.&S. D&RGW&C.&S. D&R.GW. C&S	Gasous Gasous Gasous Gasous		2500 2800 3900	3 % 3 % 3 % %	\$00	Mechanical Mechanical Mechanical Mechanical	to 7
Callente Crol Co. Prince Coal Mining Co Gordon Coal Po Astro Coal Mining Co Mutual Coal Co		Huerfam fluerfam Huerfam Huerfam	S. M. Thompson H. H. Dikin Groups, Pruth F. Mole-readt	Priver Priver Wals aburg Tallee Laillow	R. F. Poll	Malifand Pryor Gorlen, Tolte Wabenburg	D & R. G W D & R. G. W D & R. G W D & R. G W D & R. O W	Сансова Савсова Савсова Савсова Савсова Савсова Савсова	47.2	2300 4000 1000 4250			Michanical Mechanical Michanical Mechanical Mechanical	
Practics Coal Co	Ojo Canon Torrid, Vesta (Carbonado) Bunker Hill	Has classe Has classe Has class Has classe Has classe Has class	George Fruth Robert Turner Steve Maltivi Mine Abandoned	Pueldo Walaenburg Walaenburg Rapion No Report Filed	Wm. Peachcy	La Veta Rugby, Walsenburg Rappio	DARGW PAS DARGW None	Навеоця Non-guarous Плагоць Non-guarous		1500 6800 200	2.14	Constant Constan	Mechanical Mechanical Mechanical Mechanical	5 to 9 3 6 3 6 3 6
Black Canon Coul & Fuel Co North Park Coal Co	Grotga Hluck Hawk Caddell More No, 1 Mare	Hassfano Dissfano Hussfano Juckson Jackson Jackson	H. Fuwcett R. W. Moore, Jr. Geo. W. Barrell	La Veta Aspillar Walsenburg Coalmont Walden	Sam Grorge Lealle Physicit. D. M. Bussell Elmer B. Brinker	Lo Veta Aguillar Wabenburg Costmont Wablen	None	Non-gaseous Gaseous Nan-gaseous Nan-gaseous Non-gaseous	100	200 200 200 200 200	10 %	300	Michanleal., Natorel, Michanleal Michanleal Nicelianleal Natural	12
Contrad Coal Co Bird Bree,	Ponrad Mulahan Milehell Leyden No. 3, Christenen	Jackson Jackson Jackson Jeffi teas Jeffi teas Jeffi teas	Lee Conrad Mine Closed C. C. Daniels	Walden No Report Filed Walden Leyden vin Golden Latityton	George W. Davidson E. H. McChary	Walden Walden Leyden Lattlefon	None	Non-gaseous	811D 6210	150 115	65*	200 60		
Triangle Coal Co		Reff Konner Rat Pfistis Rat Sflistis Rat 14 tis Rat 14 tis	R. P. Usynolds W. R. Iseek	Mb Morrison Dur ngo Durango Durango Durango	F. D. Compbell O. P. Culsholm K. C. Nuff Fom Owen	MI Morrison Durango Durango Durango Durango Durango	None	Non-gaseous Gaseous Non-gaseous Non-gaseous Non-gaseous	one	\$78	33% 6%	\$00	Mechanical Mechanical Mechanical Natural Mechanical	10 1 6 6 - 8 -
Valley View Coal Co	Sunshine	Las Pluss Las Pluss Las Pluss Las Pluss Las Pluss	P. P. Pieros Joseph Piccoli John Baudino J. O. Fielding	Hurango Durango Durango Durango Mangos	James Di Lucio Anton Baudine William Roberts	Durongo Dar ingo Fururigo Dur ingo Micheoy	None	Non-galeous Non-galeous Non-galeous Non-galeous Non-galeous		-	5% 5%	600 1500 2200 1000	Merbunical Natural	6 5 5 7 7 8 5 6
Charles Yingling Prank Thoman Dun Richardson R. V. Galberry Perde & Conf. Co.	Morning Glary Alpatech Dar Jalor O. & D Peerloss	Les Plats Les Plats Les Plats Les Plats Les Plats Les Plats	Thos. C. Pitro	Hayle Id Hesperior Bayle Id Hesperior Hesperior	Charles Tingline Frank Tipotsch Dan Richneisun B. V. Gadberry	Bayfield Heese niw Even Ad Heese an Durange	None None None None None None	Non-galeous Non-galeous Non-galeous Non-galeous				335 75 400	Natural Natural Natural Natural Natural Nechaolcoi	6 5 5 7 8 6 4
12. Lewis Meas Darm's C. Co. 1708 Hitter : 2011 t. 0 Thus W. Taylor M. F. Leonard	Bala Suringa Sine till er Shantmerk Hammond	Tax 11 its Tax e 1988 Tax e 1988 Tax 1108 e Eas 1108 e	Xashr Dufur Chun Duchelu Thom SV Factor M.D. Leonard	Kline Bayle 16 Rayle 16 Rayle 16 Rayle 16		Kline Bayneld Bayneld Bayneld Bayneld	Nune Nune Nune Nune	Non-gaseous Non-gaseous Non-gaseous Non-guecous		800 200	- ····	30 300 435	Natural Natural Natural Natural	35 7 9 3 10
II. J. Rasmussen Colorado Darí & Iron Ca Colorado Darí & Iron Co Colorado Paul & Iron Co Colorado Paul & Iron Co	Crawford Frederick Moriey Tellise	factificta Les Autors Las Autors Las Autors Las Autors	S) L State	Lipaperna Pacido Pacido Pacido Lipoldo	 J. Basmussen A. M. Riddle T. Bahos F. C. Bennett F. C. Bennett 	The sportus Maths # Mories Tailechurge	None CAW CTASF CAS	Non-gateous Casteous Casteous Classious	36.0	200 ; 5200 ; 6500 ;	15%	13000	Natural Mechanical Mechanical Mechanical Mechanical	5 4 5 4
Colorido Fuel & Iron Co Victor-American Diel Ca American Smelling & Juf Co Temple Fuel Co Victori Coal Co		Late Aplinue Lass Antropy Lass Antropy	R. L. (Palr 11. W. Sundgrass 11. II. Hubb 12. II. Word	Collectore Transfor	P. C. Bennett Jus Struthers C. H. Garryth Mex Shi 145 Just Mat area	Delamo Cole dale Brothe ad	CAS CASE DADGW DADGW.&CAS	Сальоци Сальоци Сальоци Сальоци Сальоци		3300	155%		Mechanical Michanical Mechanical Mechanical	1, 12, to 6 5 5 5 2 4
Emplo Coal Mining Co Hoerfano Coal Co Bear Canon Coal Co	Ladiow Brat Canon No. 6	Lee Antriae Lee Antriae Lee Antriae	I R. Wood J. M. Siple Chas Resuched, St	- Friidad Deuver Ladlaw - Triidad	Damest Mol wee	Rughs Aguilter Ludlow Vallorau	DARGWACAS DARGWACAS CAS	Gas via			15.	3800 6000 3000	Mechanical Mechanical Mechanical	i to 6
Jowe') Collictics Corporation Dick Coal Co- Boral Fuel Co National Cuel Co Pio Michaelli	Djy	Late Anim 14 Late Anim 14	H H Blan H H Blan Samuel Teacher	Wobsinhurg Dieks Dens y Denver	d 14 Vine al P. G Miller R. Bickerlan Cph. Wood off	Agoilar Dicks Agoilar Trioslad	D & R. O W. & C & S D & R O W C & S C & S	Самения Самения Солесния Солесния Солесния	1 270 1		17 to 21%	#\$00 #\$000 \$000	Mechanical Mechanical Mechanical Mechanical	
Pio Michelli Deldomo Coal Co Phoenta Fuel Co Jeffryca Piel Co Hami Pari & Suppir Co	Ration Solids No.4 Foreks CArchors J. Resea Bower	Tasa Antinan Tasa Antinan Tasa Antinan Tasa Antinan Tasa Antinan	V. A. H. (1) Ell Juffree Gen A. Brann	Ropen Sopera Trinde of Prinde of Trinde of	Pio Michelli John Deldoado David Lowe	Rapean Boyela Trinidad Teinidad Teinidad	C ≜ S C & S D & R D & L (, W Nume None	Galeman Ristore Non-galeman Non-galeman Non-galeman			3 **	1500	Mechanical Mechanical Mechanical Mechanical Natural	3 kg th 6 6 6 6 6 6
Win, Morgan Jas, William Banta Ice Coal Co Ancline Direl Co	Le Bulle Engle Squitala Halda	Lisa Anbrixa Lisa Antrixa Lisa Antrixa Lisa Antrixa	George Gully E. A. Slegftb 3	Trinidad Trini 1-4 Trini 0-3d Trinidad	Witt, Morgan Jaa, Willson S. C. Defamors	Trinkind Trinkind Frinkind Trinkind	Non- Non- Nune Nune	Non-eranous Checone Non-eranous Non-eranous		2000		\$00	Natural Wethin e.d Mechanical Mechanical	3 6 7 6 6 6
Nick Riggio Louis Julian Marsh Cool Co Davich Cool Co	l'197 e co lite de Danste la	Las Animas Las Animas Las Animas		Trodd of Trodd of Scioldad Laccon	Mek Bigelo Louis Julian Walter Marsh Mile Da leb	Trindad Frindad Frindad Rapson	Nono Nono Nono Nono	Non-generate Non-generate Non-generate Non-generate	1	200	15	300	Natural Natural Natural Natural	0 1401
Donglio Cost Co O. C. C. sek Rafarl Martinez	Putteh ad Poktord Bunker Hill No 3 Martiner	Lass Animas Lass Animas I at Anisy to A st Anist an	No lieport 146-1	Prodit d Ertalded Cokertyje	Co = Pritchard Bort Buaglio Ital -4 Martinez	Trindad Trindad (Solged yb)	None	Non garage	50	706		1500	Natural Natural	
W It Owen Joergez Cost Co Itrawn & Potura Yatika Cost Co	Prospect If foure Is in site New Congo	L in Antinas L in Antinas L in Antinas Lan Antinas	11 15. Johnger	Trindind Trindind Trindind Agutlar	W II Owin Mark Brown	Trinid sd Trinid sd Trinid sd Agulf sr	None None None None	Natiogaa oya Notiogaa oya Notiogaa oya Notiogaa oya		400 131		100	Natural Natural Natural	2 B 3 4 3 4
June M. Y all		Aritmes		V chiles	Jose R. Vigil	Naldsa	Nune	NA	L	Name I				

Juan Liettagweina Twinty-niath at Jely Couttin MeNell Contemporation	2011 of July	Law Animus Las Animus Meni	A M MCNII	Menillar Bienti r.	Juli in Nahira J J Boildy	Aguilar Fatueo	DABO.W	Non-manone Franking		\$ (a) 2 4 0 H	•	1100	Natural Micronleit	1	
Pallionie Dial & Supply Co- Gurffield Post 125 Clark Carl Dia Shiye Canon Mine Co Brestale Dial Co	Pathenhe Garrield Whiter Shirert and Hits colds	NJ (4) NJ (9 5 NJ (9 5 NJ (9 6) NJ (9 6) M (9 6)	11 G. Korb Chyde Darbs	Pallente Pallente Pallente Fritte	Pred Bawl y Wallor Poilt W. S. Chick John McDurell	Pullsade Pullsade Pallende Pallende Pullsade	D & R. G. W None Nume Nume	Gereonn Non-guneogu Non-guneogu Non-guneogu Non-gureogu Non-gureogu		:300 1000	1 m 22 m		Michailea Michailea Michailea Mechailea Mechailea Al chuilea	3 FO 1	10 6
Lendy Lenger Fred Co. W. D. Stoken Hidden Treature Coal Co. Williams Foot Co. Ballard Gearlott	P. V. Fl. 6.(2) Holden Pressore With our Pressore Mittane	Million Merki Million Million	R. J. Cample II	Pathost Pathode Patho Patho Pathod Pathode	Donta Deseri W.D. Stoken	Pamio Pallode Prulia Prulia Pallode Pallode	D & R 11, W 11 & R 11, W Nnne Nnni Noni	Non-scatteoua Nin-scatteoua Non-scatteoua Non-scatteoua Non-scatteoua		1600	6%	2011 400 600 510	Naturat Mechanicat Naturat Nichanicat Naturat	2 1 2	6856
Dirinere Mittunt Coal Co Midment Development Corp McGintry Coal Po Mt Lincoln Coal Co	Esemet Sibles at Mefinter Michaela Ouropau	Missi Missi Missi Missi Missa	Lee 1: Ohren Thum Allen Nu B_rort Filed Joweph Gubbu	ismand Junifian Braad Junchan Braad Junchan Dahmade Graad Junchan Graad Junchan	Ghi illiotti	Figure Junction Figure Junction Figure Junction Figure Junction	Note Note Note Note Note	NDD-REWORTH RESPECTIVE NOT-SUSSION NUT-SUBSCOME NOT-SUBSCOME NOT-SUBSCOME		450 KOL	26% T	600	Michapteri Natural Notural Natural	8 (n 1	6
Appleting Coul Co	Prioritek Thomas	Missus Monti Missus Missus	Joe Stilfin P. P. Thinnaw I. A. Shiri fil George Phylings	Grand Junchan Anand Junchan Frain Banna Fraina	W J Northug	firand Junction firand Junction Fruita Isinia	Nuire	Non-gaacous Non-gaacous Non-gaacous Non-gaacous		300		1200 1 20 150	Natural Natural Natural Natural	4 5 6	3
J. B. Hunter U.e. Cont. Co. Biotic Cont. Co. Flictan & Shavet.	Liberty	Mona Mona Nottai Nottai	C. G. Phelan	Philla Netal Praig Setal	I. 13. Minite	Prulla Ashil Crulg Ashil	Notes	Non-gamous Nun-gamous Non-guscous Non-guscous Nun-guscous		6101 3 54	2.54	200 100 150	Nutural Nutural Natural Natural	-15	6
Grithhos Ifras Muilin & Son Little Bear Chal Co K. F. Williock J. J. Babli	Britia Harl Idille Bout Williock Briter	Noffal Noffal Noffal Noffal Noffal	Mine Closed	Praig No Report Filed Praig Hamilton No Report Filed	O. W. Rielmrids	Cooly Fronty Frontion	None	Non-gawous Non-gawous Non-gawous		8111	31	1000 150	Naturat Saturat Naturat	G 10 7 18 6	3 www.
Christ H. Turblet	Squiffy Hoal Schind See Lease Mean Vende	Moffal Municauta i Municauta i Matti attina Matti attina Matti attina	J. C. Rumberg	Craig Mancos Purira Putira Mancos	Chns H. Tipfers	Mancos., Carles Carles Marross.,	Nune	Nun-ganenus Nun-ganenus Nun-ganenus Non-ganenus Nun-ganenus	-		-	540 1000 140 1416	Natural Mistiantert Natural Natural Natural	16 3 3	-
Geo S Spiner H A Alexenth George Stablatt Hud hure Rare Metalle Furpentian	Spencer. Phys Allos Rhick Ace Dud Ince Pladun' Hill	Monteruma Monteruma Monteruma Monteruma Monteruma	Productick P. Birth	Mancow Mancos Levan Lehanon Najuriji	Gen & Spencer	Maners Manists Letenan Nuturita	None Nune None None	Non-galeous Nun-gaseous Nun-galeous Nun-galeous Nun-galeous		300 100 100	1 % 1 % 2 \/	170	Nutural Natural Nutural Nutural		Ğ
King & Mitchell,	Liberty Brill, Pleasent Vallay, Indi Jendenes Charredale	Montrose Montrose Montrose Montrose Durai	W, H. Spald	Nuclo Nuclo Nuclo Nuclo Dumy	II, P. Blog Chus A, Ries William J. Oberding C. B. Nix	Nucla Nucla Nucla Nucla Ouray	None Nune None	Nun-ganeous Nun-ganeous Nun-ganeous Nun-ganeous Nun-ganeous	tan j		ац	650 600 600 600	Natural Natural Natural Natural	3 4 4 5 40	9 7 7 7
Lowrry & Spince Factor Post Mining Ca Electric Cont Po- Electric Cont Co	Polumbine Pinrila Pailord	Ourax Flitkin Bhi Hianeo Bhi Hinneo Bhi Hinneo Bhi Hinneo	W. B. Phildia R. C. Heidian R. C. Heidian	Hidgersy Provit, Utah Mersker Mersker	T C Hurses	Ridgway Placha Mecher, Mistor No Report Piled	None Crystal Blicer None None	Non-guacona Gancona Nun-guarous Nun-guarous		250 475	6%	1900 300 490	Nutural Mechanical Neclantical Natoral	10 4 T 5	6
Literrie Cost Co	Black Diamonil Lion Canon Num Publicid Drogi cas Creek, Nine Sille Hill	Rin Hinnes Hin Blanca Hin Blanca Rin Blanca Rin Hanna	H.C. Uruhuni . G. G. Harl Is E. Jones,	Merker Merker Nisker Rangely Merker	Mine (losed C. F. Dullard Thus 11 Fureman	No llepart Film Mocher Rainzely, Mecker	None None None	Non-griecona Non-griecona Non-griecona Non-griecona Non-griecona		333	23% 18 ¹	500 250 450 500	 Natural Natural Natural Natural	s Xi	6
J. D. Puid If I' l'almoid R. C. Reinou	Part	Rio Bianco Illa Bianco Ria Bianca Roma	A N Poncher	Morku Morku Misikur Dencor	J. D. Ford E. 1* Virtefield H. C. Refrigue. H. A. Michol	Rin Bluness Merker	Nome Nume D & S L	Null-gradenia Null-gradenia Null-gradenia Gaseonia		120	21 ** 15 %	350 33x	Natural Natural Isatural Nechnnical	2 2 2 8	10
Mafful Poul Cu Mofful Poul Cu Victor-American Fuel Co.	Pinnade	Roull	R. M. Perry R. M. Perry B. W. Sundgi isu	Denver Denver	R. N. Nisilii R. M. Perry	Duk Cirek Orie Cirek Oak Civek	D & S L D & S L D, & S L	Noli-gi seous . Nin-gi seous Nili-gi seous		2400 3100	1'1016' 6* 	254X	Michanical Michanical	10 in 13 5 to 1 5 in 8	
Victor-American Duel Co Havden Ciul Cn Kerston Dani Co	Wailgo Haydra	Hoult Hoult Regitt	B W Subdgrans	Denver Denver Benver	13 O Arnold 18 A Pirres Fronk Ande w Albert 15 O fron	Mi, Hirris Havbio Renit Mi Hirria	D. & S. I D. & S. I. D. & S. I. D. & S. I D. & S. I	Grationa Non-gramous Nuo-praestas	251	(111040 (2)1700 2NUU 2000	5' to:	(2)3400 [Mechanical Michinalcal Michinalcal	5 5 14 % 5	а
Hear River Foal Co Mi Neil Foal Curporation Dateour Fort Cur- Heor T 1971	Bear River, McNull Billeen Argo Usyntyi Vallee	Tomit Domit Domit Domit Domit	IL C. Marchani J. Connell A. M. MCNUI J. T. MUIS Gen. T. HING	Draver	Jack Eponski J-M. Palit thead	Prat Bloor Mettroput Hapton Dak Culek.	DASL	Gasequii Diveons Nui-goveons Nui-goveons Nui-goveons	s#3	2000 2000 640	121	1.60	Michanical Michanical Michanicii Michanicat Niturii	10 10 13 8 10 13 10 10 8 10 10	2
Julia Illicini g	Ritcines Jones Presiding Seven Pulni		Gen. Peulli — T	Rear Rher Bear Rher Militer Militer	Mex Waller and a second	Hayden Bear Hlyrg Bear Hlyrg Millier Phlygolory	Nune	Null-grants da Null-grants da Null-grants da Null-grants Null-grant da		430	2015) 141	525 1000	Natural Natural Natural Nitural Natural	11 5 5 4 1	1 20
E H, Zhumetnam.	Block Dina Trouit Presk Waltin Amos	Routt Routt Boult Boult	E. H. Zhumerman P. H. Junet	Steinghont Spilings Funde City Nik Creek Mit Harrin 44 NeGregor	J. P. Southy D. P. Southy Other Process Julio Halabian P. C. Nungerson	Shambual Springs Oak Creek, Osk Picik, Jan	None None None None	Non-graviany Non-graviany Non-gravian Non-gravian Non-gravian		130 510 399	2015 2015 1924	2 - 10 6 11 15	Nutural	8 6 11	1
Control Control C. R. Cronx L. J. Gran Elder Cond Control Horton Fred. Co	Friengn D'rm≣r Finay EDito Hinituu	Hourt Bourt San Mignet San Mignet San Mignet		Drop Crock Norwind Norwind Norwind	Thui Photon . 1. 11 Pranz . 1. J. Grev	Dak Cryek	None None Nune Nune Nune	NOR-RAM-OR NOR-GREENDA NOR-GREENDA NOR-GREENDA NOR-GREENDA	: 5	116	11%	150 200 275	Nithert Nitarit Naturat Naturat	2	5
Win, Mariadi Ruyeza Cicil Ca Backy Mountain Duct Ca Backy Mountain Eact Ca Houlder Vulley Cont Ca	11 K., Hursey Chamber Chamber Saulder Vulley		M. D. V. m. of	Nurwood Nurwood Danca Henrot Urnet	W. Sharehult 11 Payers Henry Thumasa 11 A Kerr James Meléndéen	Nurwould Serent Fusterick Einsterick	Nume C. II & Q - II, P	Num-strate time Num-strate time Gateron in	100 135 910			4111	N dord Nicetanicul Nicetanicul Nicetanicul	6 In 10 11	
National Duri Cu Imperial Coal Co Chryton Ceal Co Chryton Ceal Cu Consultation Coal Co	Putlian, Imjeria) Cisylon Marrison Havai		Namual Tyrefta Jarnes Hystocia Bourg, Marr a Dourg, Marr a Datagy Walth	Denier Bile Deniver Deniver Deniver	Win II Lloyd R S Unshand Thos. Intris Usorga Norri at Jaw II comm	Finletick Erie Erie Lite Uricom	U, P P, P 15, 15 11, 17 11, 17 11, 19	Non-gua ona Non-gua ma Ene nga Nut-guacona Nut-guacona	110 311 110 200				Michanical Michanical Machanical Machanical Michanical		0
	Shannock Sterling Husartt Lifter White N De	W III	N M MeN-H W E Butten	Denver Denver Denver Dersterfick Gei Salle	19 H Intwork Juhn R. McNill, Jick N. Millingen Chritic Lattry Coy Linu	Prederick Darson Prederick Fredrick Le Salle	U.P U.P I ^I I ^I U.P Non-	Non-gas-ous Non-gas-ous Non-gas-ous Non-gas-ous	100 13 720 140		* * ** * *		Mischanicul Mischanicul Nischanicul Nischanicul Nischanicul Nischanicul	10 6 1% to *	ſ,
	a more dans														





FATAL ACCIDENTS; NUMBER OF MEN EMPLOYED PER FATAL ACCIDENT AND NUMBER OF TONS PRODUCED PER FATAL ACCIDENT; NUMBER OF NON-FATAL ACCIDENTS; NUMBER OF MEN EMPLOYED PER NON-FATAL ACCI-DENT AND NUMBER OF TONS PRODUCED PER NON-FATAL ACCIDENT; NUMBER KILLED FER 1,000 EMPLOYED SHOWING BY COMPANIES: TOTAL NUMBER OF TONS PRODUCED AND NUMBER OF MEN EMPLOYED; NUMBER OF AND NUMBER OF MEN INJUKED PER 1,000 EMPLOYED.

MPANIF	L 410 Production Production 8110 001	H Employed Main Tanking Main Men	No. of Fatal Accidents	-4: Employed Per Fatal Accident	ر من مر Tons بې Produced Per ۲۰۰۰ Fatal Accident	No. of Non-	معن المعنى من المعنى من المعنى من المعنى المعن معنى المعنى الم	No. of Tons No. of Tons Produced Per Non-Patal Accident	Employed Employed Employed	روبی: 10,00 Employed دوم: 1,000 Employed
American Smelting & Ref. Co Amos Coal Co Anchor Coal Co Appleton Fuel Co Aztec Coal Mining Co	10 0200	ମ ମ ପ ପ ପ ପ ପ ପ ପ ପ ପ ପ ପ ପ ପ ପ ପ ପ ପ ପ				14 	15.9	11,301		62.8 57.7
Babson Coal Co. Bainton, John Baldwin Fuel Co. Barbour Coal Co. Barker, Wright.	2,623 2,61 1,491 1,491 947	$121 \\ 321 $		121.0	100,046	21	. 00 	4,764		173.6
Barnell, Geo. M. Baudino & Co. Bear Canon Coal Co. Bear River Coal Co. Beer Coal Co.	3,774 3,774 528,5574 4,035	4 3 69 10 9		77.0	38,574		4.0 19.3 5.3 3.3	3,774 9,644 4,044 1,345	13.0	250.0 51.9 188.4 300.0
Bellodi, Angelo	84 250	F-1 F-1	· · · · · · · · · · · · · · · · · · ·	• • • • • • • •	· · · · · · · ·	• • • • • •	• • • • • •	· · ·	· · · · · · · · · · · · · · · · · · ·	• • • • • •

STATE INSPECTOR OF COAL MINES

17

COMPANIES	Total Production	Vo. of Men Vo. of Men	Vo. of Fatal Accidents	No. of Men Employed Per Fatal Accident	No. of Tons Produced Per Fatal Accident	Vo. of Non- Fatal Accidents	No. of Men Em- ployed Per Non- Fatal Accident	No. of Tons Produced Per Non-Fatal Accident	Employed Killed Per 1,000	Injured Per 1,000 Employed
Cushman, G. B. Danville Coal Co. Davich Coal Co. Davidson, Geo. W. DeBoy, Frank.	2,134 2,682 871 845 845	с 10 07 с н		2.0	871		5.0	2,682	500.0	200.0
Deldosso Coal Co. Dick Coal Co. Domestic Coal Co. Domestic Coal Co. Duble Dick Coal Co. Drennan Coal Co.	15,338 28,782 3,0782 1,0,150 1,285	458 48 19 20 20 20 20 20 20 20 20 20 20 20 20 20				তে কাতে কা : : : :	. 4.28.5	5,113 7,196 1,000 2,537		125.0 117.6 375.0 210.5
Durango Coal Co Durham, F. R. Coal Co Edua Coal Co Elders, Jean Coal Co Electric Coal Co	$ \begin{array}{c} 3,165\\ 138\\ 620\\ 314\\ 2,890\end{array} $	$\begin{smallmatrix} 11\\2\\1\\1\\10\\10\\10\\10\\10\\10\\10\\10\\10\\10\\10\\10$					5.0	1,445		200.0
Ellsworth Canon Coal Co. Empire Coal Mining Co. Pairfeid, B. F Farmers Mutual Coal Co.	$\begin{array}{c} 3,681\\ 77,802\\ 1,402\\ 1,402\\ 167\end{array}$	141			77,802	5.	44.5	38,901	11.2	22.5
Foreman, Thos. D. Fox Coal Co. Franceville Fuel Co. Franz, G. H. Fruth & Micheletti.	$\begin{array}{c} 734\\ 817\\ 4,973\\ 1,065\end{array}$	390555 1055		3.0	1,065					
Ft. Lewis Mesa Coal Co	324	63		:		:	:	• • •	:	

Black Canon Coal & Fuel Co.522Black Diamond Coal Co.3,519Black Diamond Fuel Co.3,514Black Diamond Fuel Co.23,744Black Hawk Coal Co.23,744Black Coal Co.1,043Blair Coal Co.1,730	222 444 30 30 222 222 222 222 222 222 222 222 2				ະມາອ 	33.3	704 3,957		714.3 300.0
Bloom, J. V. 485 Blue Bird Coal Co. 707 Bluf Springs Leasing Co. 12,073 Boaglio Co. 527 Boaglio Co. 527 Boulder Valley Coal Co. 324,661	85 07 73 29 61 168		4.0	4 64 70		4.3	1,725 8,325	250.0	241.4
Brown & Patura	95 1 220 4 882 182 14 417 86 6		417.0	431,514		13.0	5,363 8,806	2.4	76.9 117.5
Canon District Coal Co. 2,214 Canon Imperial Coal Co. 9,791 Canon Quality Coal Co. 9,791 Canon Reliance Coal Co. 9,221 Canon Reliance Coal Co. 56,043 Carcitia, Paul. 250	114 16 91 18 221 16 50 96 1 1	::: ::::::	16.0 96.0	56,043		$ \begin{array}{c} 3.0\\ 6.0\\ 16.0\\ 8.7\\ \end{array} $	1,107 3,264 4,221 5,095	62.5 10.4	333.3 166.7 62.5 114.5
Castle Coal Co. 8.560 Castle Rock Coal Co. 1.015 Castle Rock Coal Co. 1.015 Chergo, Total Coal Co. 1.03 Clark Coal Co. 1.03 Clark Coal Co. 1.03	60 115 03 83 6 4 4 4 4 1 8 8 3 6 6	· · · · · · · · · · · · · · · · · · ·			· · / · · · · · · · · · · · · · · · · · · ·	4.1.0	40,176		22.7
Clayton Coal Co. 179,307 Colorado Fuel & Iron Co. 1,839,712 Colorado Springs Co. 52,614 Colorado Surings Co. 172,963 Colorado & Uath Coal Co. 172,963 Colorado & Utah Coal Co. 16,396	07 12 12 12 14 63 63 63 63 63 63 63 63 63 82 82 82	01 10 	104.5 536.8 	89,653 367,942	401 578 578	9.1 6.7 8.6 3.6 16.4	7,796 4,588 6,577 3,034 9,279	$\begin{array}{c} 9.6\\1.9\\\cdots\\\cdots\\\end{array}$	$\begin{array}{c} 110.0\\ 149.4\\ 115.9\\ 280.8\\ 61.0\end{array}$
Conrad, Lee	62 662 114 114 114 99 99 26 26 27 22 22 22 22 22					12.4	17,77,7 1,891		80.8 466.7
Cox, J. J. Cox, J. J. Coal Co. 32,890 Crested Butte Coal Co. 32,890 Crumpley, H. Coal Co. 1,017	63 90 17 .2		· · · · · · · · · · ·			21.0	16,445		47.6

na forduur ooofr				0	.0.6	•
Injured Per 1,000 Employed	259.	60.6	94.7	75.	50.0 127.9	•
Killed Per 1,000 Employed	· · · · · ·	· · · · · · ·		· · · · · ·		
No. of Tons Produced Per Non-Fatal Accident	5,128 10,649	8,487	10,141	5,172	4,393 4,066	
Vo. of Men Em- ployed Per Non- Fatal Accident	3.9	16.5	10.6	13.3	20.0	•
No. of Non- Fatal Accidents	20				392.	•
No. of Tons Produced Per Fatal Accident					158,586	• • •
No. of Men Employed Per Fatal Accident			· · · · · · · · · · · · · · · · · · ·		305.0	•
No. of Fatal Accidenta		· · · · · ·				
No. of Men	1 22 42 42	H 10 co co co	190 133 21	2 H 4 4 H 2	305 305 8	0
Total Production	$\begin{array}{c} 70\\ 2,150\\ 102,562\\ 63,893\end{array}$	1,151445445,97446075	$1,028\\1,028\\1,754\\986$	$\begin{array}{c} 589\\ 531\\ 1,211\\ 2,160\\ 15,516\end{array}$	$1,228\\8,785\\8,785\\1,180\\1,180\\2,672$	1,009

EIGHTEENTH ANNUAL REPORT

20

					-	-			
Gabriella, T. & Sons Gadberry, R. V. Garnhad, Coal Co. Gearnhart, B. & Sons. George, Sam & Sons.	$\begin{array}{c} 356\\ 463\\ 8,034\\ 1,423\\ 1,572\end{array}$	4 2 0 1 6 0 4 			н :00 н : : : :	4.0	356 4,017 1,423	· · · · · ·	250.0 200.0 166.7
Glison Asphaltum Co. Girardo, Tony. Guldano Coal Co. Golden Dawn Coal Co. Good Fuel Co.	$\begin{array}{c} 9,281\\ 500\\ 4,548\\ 17,816\\ 17,816\end{array}$	0 m 8 m 0			22 2 22 2	4.5 	$ \frac{4}{641} $	· · · · · ·	222.2 1100.0
Gordon Coal Co. Gray, L. J. Green Valley Coal Co. Griftiths Coal Co. Groblebe Bros.	$\begin{array}{c} 47,744\\ 358\\ 7,120\\ 8,786\\ 834 \end{array}$	92 1241 22 				46.0 4.0 4.0	23,872 7,120 2,929 \ldots	• • • • • • • • • • • • • • • • • •	21.7 250.0 250.0
Harrington Coal Co. Hayden Coal Co. Highview Coal Co. Hiden Treasure Coal Co. Hollingsworth, John.	$\begin{array}{c} 119,940\\ 2,665\\ 1,959\\ 1,959\end{array}$	$\begin{array}{c} 1 \\ 1 \\ 5 \\ 2 \\ 2 \\ 2 \\ 2 \\ 2 \\ 2 \\ 2 \\ 2 \\ 2$	2 73.0	59,970	21		5,711 2,665	13.8	143.8 200.0
Home Fuel & Supply Co. Horton, R. J Huerfano Coal Co. Huner, J. B.	$\begin{array}{c} 4,313\\ 57,228\\ 195,927\\ 195,927\\ \end{array}$	6 1110 155	110.0	57,223		22.0	11,445 9,330	9.1	45.5
Ince, Bud. Independent Coal Co James Brothers Fuel Co Jeffryes Fuel Co Jewell Collieries Corp	$\begin{array}{c} 3,078\\ 3,078\\ 950\\ 37,186\\ 37,186\end{array}$	01400 	55.0	37,186	· · · · · · · · · · · · · · · · · · ·	18.3	12,395	18.2	54.5
Joerger Coal Co. Jones Coal Co. Jones & Trachta. Juanta Coal & Coke Co. Julian, Louis	$1,107\\15,403\\1,000\\1,000\\1$						7,567		127.7
Keystone Coal Co. King & Mitchell. Kurie Coal Co.	65,059 735 13,942	84 1 25	· · · · · · · · · · · · · · · · · · ·	· · · ·	25	3.4	2,602	· · · · · · · · · · · · · · · · · · ·	297.6

STATE INSPECTOR OF COAL MINES

COMPANIES	Total Production	No. of Men Employed	No. of Fatal Accidents	No. of Men Employed Per Fatal Accident	No. of Tons Produced Per Fatal Accident	No. of Non- Fatal Accidents	No. of Men Em- ployed Per Non- Fatal Accident	No. of Tons Produced Per Non-Fatal Accident	Killed Per 1,000 Employed	lnjured Per 1,000 Employed
Reinau, R. C. Coal Co. Rice, A. C. Coal Co. Rice, A. C. Coal Co. Richardson Coal Co. Richardson, Dan Richardson, Dan Richardson, Dan Rifle Coal Mines, Inc.	57 335 212 489 2,715	H 01 01 H 00								
Riggio, Nick Ritchneg, John Riverside Coal Co. Rocchio Coal Co. Rocky Mountain Fuel Co.	$\begin{array}{c} 1,084\\ 1,200\\ 2,803\\ 3,568\\ 699,228\end{array}$	666 666				 1 118	5.6 5.6	2,803 3,568 5,926		200.0 166.7 177.2
Rolfe, Geo. T. (Lessee). Royal Fuel Co. Royases Coal Co. Kussen, W. E. Coal Co. Santa Fe Coal Co.	$\begin{array}{c} 2,046\\ 15,825\\ 78,557\\ 78,557\\ 1,331 \end{array}$	124 55 35					42.3	5,275 11,228		23.6 127.3
Shamrock Coal Co Smith, H. J South Canon Mine Leasing Co Spencer, G. S.	103,1795,6876687497497	81022 1722		10.0	5,687	61 · · · · · · · · · · · · · · · · · · ·	37.5	51,589	100.0	26.7
States-Hall Coal Co Stokes, W. D Stoke Canon Mine Co Sunshine Coal Co Sypolt & Brown	$\begin{array}{c} 4,001\\ 2,101\\ 3,207\\ 3,375\\ 318\\ 318\end{array}$	C-0410H						2,188		400.0
Taylor, Chas. H	96	1	:	:			:		:	

22

23

Total Production Mo. of Men Fatal Accidents No. of Men Fatal Accident Produced Per Fatal Accident Fatal Accident Fatal Accident Fatal Accident	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	16,133 35 9,533 14 3,000 2 3,000 2	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	1.845 6 1 259 2 1 1,347 4
		Coal Co.	Co.		

					and the second se				And a second sec	
Ziesenes, Henry Zimmerman, E. H.	724 774	co co		· · ·		 	· · ·	 	• • • • • •	• • • • • •
Zimmerman & Gwynn	902	63								
Total		10,683	36	296.75	296.75 228,836	1,522	7.0	5,413 3.38	3,38	142.47
			and the second se			in the second seco				

Ø	
SIZE	
PREPARED	
NI	
1930	
OF	
SHOWING BY COUNTIES PRODUCTION OF 1930 IN PREPARED SIZES	
COUNTIES	
ВΥ	
SHOWING	

$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Counties	Mine Run	Lump	Nut	Pea	Slack	Total Tons
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Archuleta	948	•				948
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Boulder	23,573	147,160	49.754	8.607	198.957	428,051
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Delta	3,285	37,179	16,185	2,143	11,531	70,323
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	Dolores	6,085	•	•	•	•	6,085
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Elbert	2,158	•	• • • •	• • • •	• • •	2,158
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	El Paso	71,982	78,742	58,409	3,644	132,567	345,344
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Fremont	55,566	183,858	58,536	3,182	110,313	411,455
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	Garfield	23,492	4,767	3,130	1,100	1,352	33,841
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	Gunnison	326, 744	78,671	16,676	1,162	75,471	498,724
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	Huerfano	407, 264	428,239	159,506	14,467	365,015	1,374,491
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	Jackson	11,074	12,423	10,544	••••••	14,721	48,762
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	Jefferson	51,313	31,088	7,136	7,840	23,708	121,085
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	La Plata	41,699	6,294	2,703	1,028	5,287	57,011
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	Las Animas	713,348	170,371	169,567	59,971	857,342	1,970,599
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	Mesa	35,792	24,563	7,321	3,557	25,104	96,337
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Moffat	7,888	397	131	• • • •	29	8,445
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Montezuma	6,456	•	•	• • • •	•••••	6,456
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	Montrose	3,470			• • • • •	• • • •	3,470
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	Ouray	585	363	146	02	16	1,180
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	Pitkin	270	1,460		•••••	12,281	14,011
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	Rio Blanco	2,037	3,303	306	29	629	6,304
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Routt	91,582	337,432	142,771	27,976	238,040	837,801
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	San Miguel	1,433	•			• • • •	1,433
1,923,495 2,296,958 869,110 244,777 2,903,754 8	Weld	35,451	750,648	166,289	110,001	831,391	1,893,780
	Totals	1,923,495	2,296,958	869,110	244,777	2,903,754	8,238,094

NOTE-In the slack, some mines include Pea and others Nut and Pea coal. The Egg and Grate coal is included in the Nut coal. (The Egg and Grate coal reported is from Boulder, Las Animas, Routt and Weld counties.)

EIGHTEENTH ANNUAL REPORT

014	112 111 5	L LU	101	n 0.	6	CUAL	2111	N LLA	5			
zəiilisis fistoT	$\frac{11}{12}$	• • •	· ·		:	 	 	:	33	 T.	: T T :	
zəiilikik¥ əəkiruZ	· · · · · · · · · · · · · · · · · · ·	•	• •	• • • • • •	•	· · · ·	· · ·	:		 1	- - -	-
Total Undergroun	11	•	•••	2	•		· · ·		333	 * * *	· · ·	Ī

COAL MINE FATALITIES IN THE STATE OF COLORADO, CLASSIFIED BY CAUSE AND OCCUPATION, FOR YEAR ENDED DECEMBER 31, 1930

	zeiillaisy fatoT	11 7 12		•	. 67		1		· ·	33	· · · · · · · · · · · · · · · · · · ·	-	- T T	3	36	
-	Surface Fatalities			-	• • • • • •	• • • • • •	• • • • • •	•	· ·			-	· == == · ·	6.	1,561	
	Dates Underground	11 12				· · ·	1	•	• •	33	· · ·	•	· · · ·		9,853	
	All Others			• •	• •	• •	::	•	• •	: **	• • •		· • • •		294	
	Electricians and Helpers	* * *				: :	: :	•	• •	:[•••				81	
	nemeqiq bas qmuq	::[: :	• •	• •	:	• •	:[•••	:	::-	[-[87	
SHAFT	Timbermen and Rockmen	. 12				::	: :	:	•••	:[~	* *	•	· · ·		224	
F	Trackmen and Bratticemen	· · · ·			· · ·	••••	• •	•			• • • •	:		:	197	
AND	Doorboys and Helpers	•••			· ·	••••	• •	•	• •	:[•••	•		:	50	
	Motormen and sinstaitaA	* * *			::	: :		:	••••	: :	::	:	· · ·	:	193	
UNDERGROUND	Drivers and Bunners	+ • 10 • •			• •	· · ·	: :	:	•••	: 2	::	•		:	661	
ERC	Shot Firers	• • •			::	· ·	: :	:	• •	:		:		:	107	
UND	Machine Runners and Scrapers	- : :			: :	: :	: :	:	• •	:[· ·	:	· · ·	:	424	
	Machine Miners	60 4 H					::	· •		: 00	· · · · · · · · · · · · · · · · · · ·	•			3,425	
	Pick Miners	100 PM					1	:	· ·	: ~	· • •	:	· · · ·		3,768	
	Fire Bosses	· · · · ·			: :-		::	:			::	:		:	128	
	nsm9707 JustzizzA		• •			:::		:		:[=	• •	:		:	59	
	Foreman	- : :			•••	• •	•••	:	• •	: -	•••			1:1	155	
	CAUSES	Underground: 1. Falls of roof (coal, rock, etc.) 2. Falls of face or pillar coal 3. Mine cars and hormitives	Coal-dust explosions (includi dust combined)	6. Exposives	Electricity (sh	Mining machines.	12. Other causes	Shaft: 13. Falling down shafts or slopes 14. Objects falling down shafts or slopes	Cages or skips		Surface: 17. Mine cars and mine locomotives 18. Electreity (shock or burns)		21. Railway cars and locomotives.	Total	Number employed in each occupation.	

STATE INSPECTOR OF COAL MINES

27

SHOWING BY COUNTIES, MINES OFERATED, 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 PRO-DUCED IN 1930, AND CAPACITY OF MINE PER DAY IN TONS.

Capacity c Mine per Day, Tons ς, 948 563 190 120 Produced Produced -nuv IstoT Employed Xo. of Men Employed 2 10 Worked of Days Number 147 Bituminous..... Bituminous..... Bituminous..... Character of Coal Pagosa Springs.... Arboles..... Dkye.... Post Office Mine Harringon Coal Co..... Payan Bros. Chas. McBroom 4 T. L. Cox. Name of Company of Mines operated: Fitzgerald Cox Payan Number Name of Mine McBroom .

BOULDER COUNTY

2000 2000 2000 2000 2000	1100 1000 1000 1000	2103
81,693 79,647 49,066 87,627 41,110	$\begin{array}{c} 40,176\\ 23,744\\ 16,974\\ 2,778\\ 2,778\\ 222\end{array}$	2,665 817 500 387 387
129 129 127 42	4000 4000 44	10 02 02 4
245.6 108.5 182.3 187.3 262	185.3 277 247 175 36	216 176 175 102
Sub-bituminous Sub-bituminous Sub-bituminous Sub-bituminous Sub-bituminous	Sub-bituminous Sub-bituminous Sub-bituminous Sub-bituminous Sub-bituminous	Sub-bituminous Sub-bituminous Sub-bituminous Sub-bituminous
Lafayette Superior Lafayette Broomfield	Louisville Boulder Louisville Boulder	Gorham Gorham Marshall Gorham
Rocky Mountain Fuel Co Rocky Mountain Fuel Co Rocky Mountain Fuel Co National Fuel Co David Allan	Centennial Coal Co Black Diamond Fuel Co Louisville-Lafayette Coal Co Domestic Coal Co	High-View Coal Co. Fox Coal Co. Tony Girardo New Ross Coal Co.
Vulcan. Industrial Standard Monarch No. 2.	Centennial Black Diamond. Hl-Way Gorham Pluto.	High-View. Rocky Ridge. Sunrise.

ARCHULETA COUNTY

	10			1,000 		10		:	
	356 289	428,051		$\begin{array}{c} 45,403\\ 7,120\\ 5,789\\ 4,010\\ \cdot 3,078\end{array}$	2,394 318 259 195	150 70,323		6,085	6,085
	403	552		₩ 124344	4 cc – Cl –	1		Ľ* ľ	[**
	40 48	194.1		$\begin{array}{c} 74\\ 301\\ 246.3\\ 204\\ 204\end{array}$	234 204 74 65	$\frac{60}{125.5}$		F21	F 9 1
ntinued	Sub-bituminous	•		Bituminous Semi-bituminous Semi-bituminous Semi-bituminous Semi-bituminous	Semi-bituminous Semi-bituminous Semi-bituminous Semi-bituminous Semi-bituminous	Semi-bituminous	Υ	Sub-bituminous	
BOULDER COUNTY-Continued	Gorham	· • • • • • • • • • • • • • • • • • • •	DELTA COUNTY	Bowie Cedaredge Cedaredge Paonia Cedaredge	Cedaredge Cedaredge Hotchkiss Austin	Hotchkiss	DOLORES COUNTY	McPhee	ELBERT COUNTY
BOULDI	Tom Gabriella.	of Mines operated: 16		Juanita Coal & Coke Co Green Valley Coal Co Red Canon Coal Co Paonia Parmers Coal Co Independent Coal Co	States Hall Coal Co States Hall Coal Co Stotes Hall Coal Co Sypolt & Brown Winton Coal Co Owens & Sons	T. M. Vowell	DO	New Mexico Lumber Co.	of Mines operated: 1
	Pine Cliff	Number		King. King. Green Valley. Red Canon. Paonia. Independent.	Red Mountain States Burdlek Winton	Reaux Creek		North Star	Number

Louithe Antinity and III a

29

20

 $1,211 \\ 947$ 2,158

4010

180 175 177.8

Sub-bituminous...

Matheson.....

Mascot Coal, Oil & Clay Co..... Wright Barker

2

of Mines operated:

Number

STATE INSPECTOR OF COAL MINES

5	1
Z	Ā.
	2
7	5
2	5
-	
\subset	5
$\mathcal{C}_{\mathcal{U}}$	
\bigcirc	
Ŭ.	DOTT .
DN NO	DONTE T
Ŭ.	

 $\overline{\Xi}$

7

Capacity of Mine per Day, Tons	1,500 300 150 150		*
Total Num- ber of Tons Produced	$\begin{array}{c} 240,876\\ 52,614\\ 26,474\\ 13,942\\ 4,973\end{array}$	2,682 2,035 1,285 463	345,344
Average No. of Men Employed	170 69 30 255 10	00000	320
Number Mumber Worked	226 247 241 246 192.5	$ \begin{array}{c} 190.5 \\ 214 \\ 204 \\ 107 \\ 107 \end{array} $. 227.4
Character of Coal	Sub-bituminous Sub-bituminous Sub-bituminous Sub-bituminous Sub-bituminous	Sub-bituminous Sub-bituminous Sub-bituminous Sub-bituminous	• • • • • • • • • • • • • • • • • • •
Mine Post Office	Pikeview	Colorado Springs Colorado Springs Colorado Springs Yoder	• • • • • • • • • • • • • • • • • • • •
Name of Company	Pikes Peak Fuel Co. Colorado Springs Co. Corley Coal Co. Kurie Coal Co. Franceville Fuel Co.	Danville Coal Co. Thomas Mining Co. Drennan Coal Co.	of Mines operated: 9
Name of Mine	Pikeview Pikeview City Coal Mines Corley Kurle Franceville	Climax	Number

1,000800250500. 35 150 50 2575 : $\begin{array}{c} 170,691\\ 81,683\\ 25,983\\ 56,043\\ 12,073\end{array}$ $\begin{array}{r} 4,348\\ 200\\ 200\\ 10,184\\ 9,791\\ 9,791 \end{array}$ 8,786 4,221 $236 \\ 234 \\ 296$ 44000 2227.8 128.7 153.5 210 210 $\begin{array}{c} 158 \\ 30 \\ 252 \\ 201 \\$ $224 \\ 205$ Bituminous..... Bituminous. Bituminous. Bituminous. Bituminous..... Bituminous..... Bituminous..... Semi-bituminous..... Canon City..... Rockvale..... Canon City..... Coal Creek..... Florence.... Florence..... Florence Chandler.... Coal Creek Guiliano Coal Co..... Guiliano Coal Co..... Orecchio Coal Mining Co..... Victor-American Fuel Co.... Colorado Fuel & Iron Co...... Colorado Fuel & Iron Co...... Canon-Reliance Coal Co...... Double Dick Coal Co. Canon Imperial Coal Co. Griffiths Coal Mining Co..... Bluff Springs Leasing Co.... New Fremont..... Chandler Brookside Double Dick.... Rockvale..... Bluff Springs No. 1.... Nonac.....

Λ

FREMONT COUNTY

EIGHTEENTH ANNUAL REPORT

đ	Bituminous 242 10 4,035 30 Bituminous 171 15 3,681 20 Semi-bituminous 197 6 3,568 25	nous 110 6 2.214 30 nous 126 5 1,491 5 nous 300 2 950 .5 5 5 nous 30 49 6 586 5 5 nous 30 4 485 5 5	nous 120 1 250 2 nous 60 2 42 5	184.5 847 411,455		nous	nous 244.5 3 1.180 15 nous 220 2 1.017 nous 130 1 845 nous 96 3 724 nous 75 1 84	212.4 43 33,841	
FREMONT COUNTY-Continued	Florence Bituminous Canon City Bituminous. Coal Creek Semi-bitumi	Canon City Bituminous. Florence Bituminous. Florence Bituminous. Florence Bituminous.	Florence Bituminous.		GARFIELD COUNTY	Glenwood Springs. Bituminous. MackBituminous. Glenwood Springs. Bituminous. RifleBituminous. RifleBituminous.	Silt		GUNNISON COUNTY
FREMON	Beer Coal Co	Canon District Coal Co	Paul Carsitia.	of Mines operated: 22	GAR	New Castle Coal Co	Morgan Coal Co	of Mines operated: 10	GUN
	Jack O'Lantern	Canon District	Willie No. 1	Number		New Castle	Silt. MeLearn MeLearn C C C C C C C C C C C C C C C C C C C	Number	

$ \begin{array}{c c c c c c c c c c c c c c c c c c c $
182.5 172.4 188.5 144.5
Bituminous Bituminous Semi-Anthracite Authracite
Somerset
Calumet Fuel Co Colorado Fuel & Iron Co Oliver Coal Co Oliver Coal Co Columbine Anthracite Co Crested Butte Coal Co
Somerset. Crested Butte. Oliver. Horace. Bulkley No. 2.

STATE INSPECTOR OF COAL MINES

Continued	
X	
TN	
Z	
0	
Ö	
Z	
3	
ISON	
H I	
-	
F	
H	
GUNN	
0	

Capacity of Mine per anoT ,ya G	350 100 50
Total Num- ber of Tona broduced	$\begin{array}{c} 28,737\\ 26,563\\ 1,015\\ 1,491\\ 212\\ 498,724\\ \end{array}$
Average No. of Men Employed	57 1 2 560 2 2 2 57 7
Number Vorked Worked	$\begin{array}{c} 97\\ 116\\ 85\\ 73\\ 73\\ 76\\ 173.7 \end{array}$
Character of Coal	Semi-bituminous Bituminous Bituminous Bituminous Bituminous
Mine Post Office	Baldwin. Gunnison Gunnison Baldwin. Gunnison
Name of Company	Rocky Mountain Fuel Co Ohio Creek Coal Co Castle Rock Coal Co Baldwin Fuel Richardson Coal Co of Mines operated: 10
Name of Mine	Alpine

	$1,000 \\ 1,400 \\ 1,100 \\ 850 \\ 830$	$1,000 \\ 1,000 \\ 1,000 \\ 300 \\ 400$	$\begin{array}{c} 300\\ 450\\ 300\\ 300\\ 300 \end{array}$	$150 \\ 300$
Υ	181,301 159,610 156,825 115,376 166,075	$\begin{array}{c} 82,775\\ 105,430\\ 100,046\\ 30,496\\ 55,720\end{array}$	$\begin{array}{c} 19,362\\ 53,373\\ 47,744\\ 28,732\\ 21,386\end{array}$	18,030 16,133
	229 288 227 227 210	149 121 53 130 1 130 1 130 1 130 1	6522 6222 6222	29 35
	$\begin{array}{c} 156.8\\ 144.7\\ 132.7\\ 214.9\\ 201\end{array}$	$ \begin{array}{c} 192.5 \\ 233 \\ 224 \\ 166.5 \\ 173 \\ \end{array} $	$\begin{array}{c} 84.5\\ 194.7\\ 100\\ 123.5\\ 146.5\end{array}$	141 157
	Semi-bituminous Bituminous Bituminous Bituminous	Bituminous Bituminous Bituminous Bituminous Bituminous	Bituminous Bituminous Bituminous Bituminous Bituminous	Bituminous
HUERFANO COUNTY	Walsen Pictou Farr Delcarbon	Delcarbon Alamo Alamo Oakview Ravenwood	Maitland Prvor Gordon Toltec	La Veta
ΗU	Colorado Fuel & Iron Co Colorado Fuel & Iron Co Colorado Fuel & Iron Co Colorado Fuel & Iron Co Colorado Fuel & Iron Co	Calumet Fuel Co. Alamo Coal Co. Barbour Coal Co. Oakdale Coal Co. Caliente Coal Co.	Caliente Coal Co Pryor Coal Mining Co Gordon Coal Mining Co Aztec Coal Mining Co	Peachey Coal Co
	Robinson No. 1 Pictou Cameron Kebler No. 2 Calumet No. 1	Calumet No. 2 Alamo Alamo No. 2 Dakkale Ravenwood	Maitland Pryor. Gordon Toltec. Mutual	Ojo Canon

Vesta (Carbonado) Minnequa fuel Co Walsenburg Pacific Coal Mining Co Steve Mativi & Sons Rabson Pacific Coal Mining Co Natsenburg Black Hawk Black Hawk Coal Co Walsenburg Black Hawk Black Hawk Coal Co Walsenburg Coddell Black Hawk Coal Co Walsenburg Number of Mines operated: 23 La Veta Moore No. 1 North Park Coal Co Walsenburg Moore No. 1 North Park Coal Co Walsenburg Moore No. 1 North Park Coal Co Walden Moore No. 1 Number South Park Coal Co Walden Moore No. 1 North Park Coal Co Walden Walden Moore No. 1 Number South South Co Walden Walden Moore No. 1 Number Morth South Co Walden Walden Walden Mourad Number Morth South Co Mark Walden Walden Walden Walden Morthen Walden Morthen Walden Morthen Mark Morthen Mark Morthen <	nnequa. Puel Co ve Mattivi & Sons effic Coal Mining Co m George & Sons						
Rawk Coal Co. Black Hawk Coal Co. Black Canon Coal & Fuel Co. Black Canon Coal & Fuel Co. No. 1. of Mines operated: 23 No. 1. North Park Coal Co. No. 1. North Park Coal Co. No. 1. North Park Coal Co. No. 1. Seorge W. Band Co. No. 1. Coord Coal Co. Number of Mines operated: 5 No. 3 Derated Co. Number of Mines operated: 5 Number of Mines operated: 5 Number of Mines operated: 5	m George & Sons ack Hawk Coal Co	Walsenburg Rapson	Bituminous Bituminous	$180 \\ 29 \\ 29 \\ 29 \\ 29 \\ 29 \\ 29 \\ 29 \\ 2$	40 58	8,785 2,160 1,995	250 25
of Mines oberated: 23 North Fark Coal Co George M. Barnell Conrad Coal Co Conrad Coal Co Conrad Coal Co Def Nines operated: 5 of Mines operated: 5 Leyden Lignite Co of Mines operated: 3	ack Canon Coal & Fuel Co	La Veta	Bituminous Bituminous	192 188 110	430	$1,572 \\ 1,043 \\ 522$	10 10
North Park Coal Co Coorrad Coal Lo Coorrad Coal Co Goorrad Coal Co Goorrad Coal Co George W. Davidson George W.			• • • • • • • • • • • • • • • • • • •	161.5	2,119	1, 374, 491	
North J'ark Coal Co	Υľ	JACKSON COUNTY	Υ.				
of Mines operated: 5 I eyden Lignite Co Devden Lignite Co Blue Bird Mining, Inc	arth Park Coal Co. orge M. Barnell. and Coal Co. d Bros	Coalmont.	Semi-bituminous Semi-bituminous Semi-bituminous Sub-bituminous Sub-bituminous	2205 2205 125 125	39 11 1	$\begin{array}{c} 44,208\\ 3,774\\ 2,774\\ 250\\ 250\\ 68\end{array}$	30
Leyden Lignite Co Good Puel Co Blue Bird Mining, Inc of Mines operated: "		•••••••••••••••••••••••••••••••••••••••	· · · · · ·	211.7	46	48,762	: : :
Leyden Lignite Co	JEF	JEFFERSON COUNTY	ΓΥ		•		
of Mines operated: 3	ne.	Leyden via. Golden Littleton	Sub-bituminous Sub-bituminous Sub-bituminous	243.5 214 67	77 20 13	$105,562 \\ 17,816 \\ 707$	750 175 30
	**	· · · · ·	· · · · · · · · ·	217.3	110	121,085	•
ATATA AI	Ϋ́́Ι	LA PLATA COUNTY	Ă	-			1
San Juan	nericau Smelting & Ref. Co. langle Coal Co stle Coal Co K. Coal Co	Durango Durango Durango	Bituminous Bituminous Bituminous Bituminous	$ \begin{array}{r} 156\\ 159.5\\ 291\\ 202 \end{array} $	28 14 9	13,257 9,533 8,560 5,571	150

STATE INSPECTOR OF COAL MINES

33

ontinued
Õ
Ĭ
E
A
5
Ξ
\circ
TA
PL
LıA

Name of Mine	Name of Company	Mine Post Office	Character of Coal	Number Mumber Worked	Average No. of Men Employed	-muN lstoT ber of Tons beouborq	Capacity of Mine per Day, Tons
Sunshine	Sunshine Coal Co	Durango Durango Durango Durango Mancos	Bituminous Bituminous Bituminous Bituminous	167 113 207 104 175	11 33 33 35	4,375 3,519 3,165 1,477	40 75 25
Morning Glory	Chas. Yingling Frank Tipotsch. Dan Richardson R. V. Gadberty. Peerless Coal Co.	Bayfield. Hesperus. Bayfield. Hesperus. Durango.	Bituminous Bituminous Bituminous Bituminous	132 194 139 139	95114	1,347650463463425	20
Soda Springs Pine River Shamrock Hammond Crawford	Ft. Lewis Mesa Farmers Coal Co. Pine River Coal Co. Thos. W. Taylor M. F. Leonard. H. J. Rasmussen.	Kline. Bayfield Bayfield Bayfield Hesperus.	Sub-bituminous Bituminous Bituminous Bituminous Bituminous	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	81111	324 339 309 309 309 300 300 300 300 300 300	10
Number	of Mines operated: 19			147	101	57,011	

LAS ANIMAS COUNTY

Frederick	Colorado Fuel & Iron Co	Valdez	Bituminous	182.5	465	385.924	2,100
Morlev	Colorado Fuel & Iron Co.	Morley	Bituminous	166.7	450	302,561	1,800
Toller	Colorado Fuel & Iron Co	Tollerburg	Bituminous	301.4	278	248,660	1,325
Tabasco	Colorado Fuel & Iron Co	Berwind.	Bituminous	31	200	31,042	1,000
Delagua	Victor-American Fuel Co	Delagua	Bituminous	229	345	327, 320	2,000
				-	-		_

cinued
nt
3
Ĭ
TY-
ND
20
S
MA
Ξ
AN
-
S
L

1,200 500 600 600	200 800 300	250 45 60 15	. 50 . 25	1001 	10	10 2 4	
$144,962 \\ 126,096 \\ 66,118 \\ 77,802 \\ 57,223 \\ 57,223 \\$	38,574 37,186 28,782 15,507 15,825	$15,516 \\ 15,538 \\ 10,5338 \\ 4,577 \\ 4,577 \\ 4,313 \\ 4,313 \\ 15,515 \\ 10,5$	2,672 1,845 1,331 1,171 1,084	1,000 871 871 527 527	2226 2226 950 950	8 8 9 4 4 8 9 7 7 3	1,970,599
195 206 82 82 110	77 55 34 127 67	40 40 69 69	00 CO CO CO	ରାରାରାରାରା	00-00	8188	2,950
170 200 138.6 137	$124 \\ 171 \\ 119 \\ 31.4 \\ 65.1$	$250 \\ 218 \\ 86.5 \\ 231 \\ 256.5 $	156 107 98 85 85	$200 \\ 284 \\ 126 \\ 75 \\ 75 \\ 75 \\ 75 \\ 75 \\ 75 \\ 75 \\ 7$	$135 \\ 60 \\ 50 \\ 50 \\ 50 \\ 50 \\ 50 \\ 50 \\ 5$	555 30 12 12	167.2
Bituminous Bituminous Bituminous Bituminous Bituminous	Bituminous. Bituminous. Bituminous. Bituminous.	Bituminous Bituminous Bituminous Bituminous	Bituminous Bituminous Bituminous Bituminous	Bituminous Bituminous Bituminous Bituminous	Bituminous Bituminous Bituminous Bituminous	Bituminous Bituminous Bituminous Bituminous	* * * * * * * * * * * * * * * * * * *
Cokedale. Brodhead. Rugby Aguilar. Ludlow.	Vallorso Aguilar Dicks Aguilar Trinidad	Rapson. Sopris. Trinidad Trinidad Trinidad	Trinidad Trinidad Trinidad Trinidad Trinidad	Trinidad. Trinidad. Rapson. Trinidad.	Rapson. Cokedale. Trinidad Trinidad	Aguilar Valdez Trinidad Aguilar	
American Smelting & Ref. Co. Temple Fuel Co Vickers Caal Co Empire Coal M. Co	Bear Canon Coal Co Jewel Collieries Corp Rick Coal Co Rioyal Fuel Co National Fuel Co	Pio Micheli Deldosso Coal Co Photenix Fuel Co Jeffryes Fuel Co Home Fuel & Supply Co	Wm. Morgan. James Wilson. Santa Fe Coal Co. Santa Fe Coal Co. Nick Riggio.	Louis Julian. Marsh Coal Co. Davich Coal Co. Charles Pritchard Boaglio Coal Co.	O. C. Cook. R. Martinez V. D. Owen Joerger Coal Co. Brown & Putaturo	Valdez Coal Co. Jose S. Vigil. John Hollingsworth	or Mines operated: 39
Boncarbo	Bear Canon No. 6 Creston Dix Royal. Thor	Rapson Sopris. Anchor (Eureka) Jeffryes. Bowen	La Belle. Engle. Santa Fe. Baldy Lakeview.	Fairview Pishers Peak Davion Prickford.	Bunker Hill No. 2 Martinez. Prospect. Beshoar Peacock.	New Congo Vigil Ferrill. 29th of July	Number

STATE INSPECTOR OF COAL MINES

35

COUNTY	
MESA	

Name of Mine	Name of Company	Mine Post Office	Character of Coal	Number Vorked Worked	Average No. of Mei Employed	Total Num noT to Ton beoubord	Capacity o Mine per Day, Tons
Cameo	McNeil Coal Corporation Palisade Coal & Supply Co Garfield Coal Co	Cameo. Palisade Palisade Palisade Fruita.	Semi-bituminous Semi-bituminous Semi-bituminous Semi-bituminous Bituminous	175 193 204 190 184	49 18 6 4	$\begin{array}{c} 48,096\\ 12,663\\ 8,034\\ 4,583\\ 3,207\\ 3,207\\ \end{array}$	600 150 100 50
Riverside Riverside R P. V. Stokes W Stokes Hidden Treasure H Williams W	Riverside Coal Co Louis Lesser Coal Co W. D. Stokes Hidden Treasure Coal Co Williams Coal Co	Palisade Cameo Palisade Fruita Grand Junction	Semi-bituminous Anthracite Semi-bituminous Bituminous	178 150 96 189	10 01 00 07 44	2,803 2,150 2,141 1,959 1,894	
Mt. Garfield	B. Gearhart & Sons Farmers Mutual Coal Co Midwest Development Corp McGinley Coal Co Mt. Lincoln Coal Co	Palisade Grand Junction Palisade Grand Junction Palisade	Semi-bituminous Semi-bituminous Bituminous Semi-bituminous Semi-bituminous	78 186 167 130 210	644010	$1,423 \\ 1,402 \\ 1,228 \\ 1,028 \\ 1,009 \\$	$\begin{array}{c} 30\\25\\\cdots\\20\\\cdots\\\end{array}$
CorcoranA Peacock	Appleton Coal Co	Grand Junction Grand Junction Grand Junction Fruita	Bituminous Semi-bituminous Semi-bituminous Bituminous Semi-bituminous	136 100 150 90	00 00 00 00 00 00 00 00	734 700 392 138	$\begin{array}{c} 20\\ 4\\ 20\\ 25\\ \cdots\end{array}$
Nearing (Liberty) L Hunter J Number of	Liberty Coal Co	Fruita	Semi-bituminous Semi-bituminous	40 20 164.5	2 2	$\begin{array}{c}101\\65\\96,337\end{array}$	

EIGHTEENTH ANNUAL REPORT

X
E
5
~
D
0
Õ
E
\triangleleft
H
H
\odot
\geq

					_		
Ifte (Collom)	Ute Coal Co.	Axial	Bituminous	150	67	3,000	00
Blair	Blair Coal Co.	Craig	Sub-bituminous	200	2	1,730	20
Shaver	Phelan & Shaver	AxiaI	Bituminous	250	53	1,514	20
Evans	Groblebe Bros.	Craig	Sub-bituminous	133	67	834	
Hart	Martin & Sons	Craig	Sub-bituminous	129	67	589	
Little Bear.	Little Bear Coal Co.	Craig	Sub-bituminous	120	0	445	•
Whitlock	E. E. Whitlock	Hamilton	Bituminous	200	1	143	67
Square Deal.	Chas. H. Taylor.	Craig	Sub-bituminous	90	Ţ	96	•
Baker	J. J. Babb	Craig	Sub-bituminous	1.9	00	94	•
					[
Number	of Mines operated: 9	• • • • • • • • • • • • • • • • • • • •	•	135.1	18	8,445	
				-	-	-	

MONTEZUMA COUNTY

School Section Lease Mesa Verde Cortez Wilden Spencer	Mancos Coal & Fuel Co G. B. Cushman. Cortez Coal Co Willden Coal Co Geo. S. Spencer.	Mancos Cortez Cortez Mancos Mancos	Bituminous Bituminous Semi-Bituminous. Semi-Anthracite Semi-Bituminous.	$213 \\ 244 \\ 244 \\ 200 $	∞ co 6 1 61 ≓	1,754 1,134 1,026 724 626	20
Pinos Altos Black Ace Bud Ince	H. A. Ainsworth George Stakish Bud Ince	Mancos	Semi-Bituminous. Bituminous	145 135 90	-03	515 497 180	590
Number	of Mines operated: 8			181.8	16	6,456	

MONTROSE COUNTY

Fiddlin Bill.	Rare Metals Corporation	Naturita	Bituminous	250	9	1,913	40
Liberty Bell.	King & Mitchell	Nucla	Anthracite	200	1	735	9
Pleasant Valley	Chas. R. Rice	Nuela	Bituminous	121	2	335	4
Independence	W. J. Oberding	Nucla	Bituminous	150	-	330	
Cloverdale	C. E. Nix.	Nucla	Bituminous	°?	63	157	• • • •
Number	of Mines operated: 5	•	· · · · · · · · · · · · · · · · · · ·	179.6	12	3,470	
				-	-	_	

STATE INSPECTOR OF COAL MINES

37

K	4
1	٦.
1	
5	
7	~
1	-
	7
C	٦.
2	5
)
	·
h.	
2	-(
٢.	4
_	ς.
	۵.
1	-
	5
-	2
1	5
5	~

Name of Mine	Name of Company	Mine Post Office	Character of Coal	Number of Days Worked	Average No. of Men Employed	Total Num- snot to tod beoubord	Capacity of Mine per Day, Tons
Burro Creek ColumbineNumber	Burro Creek Coal Co Lowery & Spencer of Mines operated: 2	Ouray	Sub-bituminous Sub-bituminous	$\frac{118}{60}$	4 63 9	$\frac{720}{460}$	
		PITKIN COUNTY	2				

14,011 14,011	19	196 196	Bituminous	Placita	Placita Coal Mining Co Placita Bituminous of Mines operated: 1
			ATTV	BIO BLANCO COIINTY	BIO
14,011	19		•	•	of Mines operated: 1
]				
14,011	19		_	Placita	Placita Coal Mining Co

••••••• Number

Placita..

50 10 10	
1,651 604 524 111	$\begin{array}{c} 1,000\\ 734\\ 198\\ 167\\ 167\\ 57\\ 6,304 \end{array}$
ಣಣ⊣⊷ಣ	22 1 1 1 1 2 2 1 1 1 2 2 2 2 2 2 2 2 2
$\begin{array}{c} 192\\ 123\\ 163\\ 163\\ 231\\ 231\end{array}$	153 65 70 50 50 50 120.5
Bituminous Bituminous Bituminous Bituminous	Bituminous Bituminous Bituminous Bituminous Bituminous Bituminous
Meeker Meeker Meeker Meeker	Meeker Meeker Rangely Rio Banco Meeker Meeker
Flectric Coal Co. Electric Coal Co. Electric Coal Co. Electric Coal Co. Flectric Coal Co.	C. F. Pollard Thos. D. Foreman Jones & Trachta J. D. Ford E. F. Fairfield R. C. Reinau of Mines operated: 11
Pollard. Oldland. McKee Black Diamond.	New Pollard Nine Mile Hill. Douglass Creek. Ford. Fairfield. Reinau. Number

EIGHTEENTH ANNUAL REPORT

100

-	
-	٩.
E	
1	5
-	٩.
-	٦.
	-
-	5
5	2
7	2
~	1
_	
-	4
L	4
LL.	-
rhrh.	- -
Trprh	
Trprp	
TTTTT	
OITTPT	
OTTTPT	

Y

$\begin{array}{c ccccc} 172,963 \\ 3,665 \\ 146,544 \\ 8,377 \\ 115,178 \\ 115,178 \end{array} \begin{array}{c} 4,000 \\ 4,000 \\ 1,760 \\ 1,760 \end{array}$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c} 46,247 \\ 2,623 \\ 2,046 \\ 1,348 \\ 1,200 \\ 14 \end{array} \\ \begin{array}{c} 500 \\ 15 \\ 15 \\ 14 \\ 15 \\ 16 \\ 16 \\ 16 \\ 16 \\ 16 \\ 16 \\ 16$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	620 261 195 103 25	837,801	
$ \begin{array}{c} 203\\ 192\\ 168\\ 168\\ 168\\ 168\\ 168\\ 168\\ 168\\ 168$	146 84 69 69	9 40701	610000H	81111	1,239	
$132 \\ 77 \\ 66.2 \\ 65.$	$\begin{array}{c} 32.5\\ 114.6\\ 117\\ 107\\ 98.5\end{array}$	$\begin{array}{c} 78.3\\ 223\\ 80\\ 140\\ 180\end{array}$	$1532 \\ 78 \\ 88 \\ 128 \\ 88 \\ 128 \\ $	150 51.5 35 36 30	89.2	
Bituminous Bituminous Bituminous Bituminous Bituminous	Bituminous Bituminous Bituminous Bituminous	Bituminous Bituminous Bituminous Sub-bituminous	Bituminous Bituminous Bituminous Semi-Anthracite Bituminous	Bituminous Bituminous Bituminous Bituminous		TY
Mt. Harris Oak Creek Oak Creek Oak Creek	Mt. Harris Haybro Routt Mt. Harris Bear River	McGregor Hayden Oak Creek Hayden Bear River	Bear River Milner Phippsburg Steamboat Spgs Oak Creek	Oak Creek Mt. Harris McGregor Oak Creek		SAN MIGUEL COUNTY
Colorado & Utah Coal Co Moffat Coal Co Moffat Coal Co Moffat Coal Co Victor-American Fuel Co	Victor-American Fuel Co Hayden Coal Co Keystone Coal Co Pinnacle-Kemmerer Fuel Co Bear River Coal Co	McNeil Coal Corporation Babson Coal Co Geo, T. Rolfs, Lessee Alex Walter John Ritchneg	Jones Coal Co. Fruth & Micheletti. Zinmernan & Gwynn. E. H. Zimmernan. Edna Coal Co.	Chris Pasch John Bainton Amos Coal Co. Tom Chorgo. G. H. Franz.	of Mines operated: 25	SAN
Harris	Widgo	McNell. Babson. Argo. Rigden Valley.	Jones	Trout Creek. Walter. Amos. Franz.	Number	

. 4 01 01 2582582582532531,433-000---167.3 $\begin{array}{c}
 120 \\
 223 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 120 \\
 1$ Sub-bituminous... Sub-bituminous... Sub-bituminous... Sub-bituminous... Sub-bituminous... Norwood Norwood Norwood Norwood Norwood L. J. Gray Elder Coal Co. Horton Coal Co. Wm. Marriott. Royers Coal Co. of Mines operated: 5. Gray. Elder Marriott..... Horton Number

STATE INSPECTOR OF COAL MINES

F
_
1
4
1
\sim
-
\cup
20
\smile
\sim
_
63
-
~
~
-

Name of Mine	Name of Company	Mine Post Office	Character of Coal	Worked of Days Worked	Average Ko, of Men Employed	Total Num- ber of Tome besuced	Capacity of Mine per Day, Tons
	Rocky Mountain Fuel Co Rocky Mountain Fuel Co Roulder Valley Coal Co National Fuel Co Imperial Coal Co	Serene Frederick Bro. Frederick Frederick	Sub-bituminous Sub-bituminous Sub-bituminous Sub-bituminous Sub-bituminous	206 189 168 168 184.7 196	$\begin{array}{c} 220\\ 130\\ 216\\ 214\\ 155\end{array}$	$\begin{array}{c} 282,776\\ 177,309\\ 324,661\\ 257,310\\ 195,927\\ 195,927\end{array}$	$\begin{array}{c} 1,500\\ 2,000\\ 2,000\\ 1,500\end{array}$
	Clayton Coal Co	Erte. Brie. Dacona. Frederick.	Sub-bituminous Sub-bituminous Sub-bituminous Sub-bituminous Sub-bituminous	143 75 207.9 178 178	189 20 99 77	$\begin{array}{c} 176,539\\ 2,768\\ 142,214\\ 103,179\\ 88,191\end{array}$	1,500 2,500 1,000 1,000
· · · ·	W. B. Russell Coal Co Liley Coal & Land Co White Ash Coal Co	Frederick Frederick	Sub-bituminous Sub-bituminous Sub-bituminous	$ \begin{array}{c} 191.1 \\ 261 \\ 150 \\ \end{array} $	55 47 4	$\begin{array}{c} 78,597\\ 63,893\\ 416\end{array}$	$\begin{array}{c} 600\\ 400\end{array}$
Number	of Mines operated: 13			186	1,453	1,893,780	mental second second

STATE OF COLORADO

		Employed in and Around the Mines of Colorado
1.	*UNDERGROUND Foremen Assistant foremen	$155 \\ 59$
2. 3. 4. 5. 6.	Assistant forement Fire bosses. Pick miners. Machine runners and scrapers.	$128 \\ 3,768 \\ 3,425 \\ 424$
7. 8. 9. 10.	Shot firers. Drivers and runners. Motormen and assistants. Doorboys and helpers.	$ \begin{array}{r} 107 \\ 661 \\ 193 \\ 50 \end{array} $
11. 12. 13. 14. 15.	Trackmen and bratticemen Timbermen and rockmen Pumpmen and pipemen Electricians and helpers	$ \begin{array}{r} 197 \\ 224 \\ 87 \\ 81 \\ 294 \end{array} $
	Total underground	9,853
	SURFACE	
$ \begin{array}{c} 1.\\ 2.\\ 3.\\ 4.\\ 5.\\ 6.\\ 7.\\ 9.\\ \end{array} $	Superintendents Foremen Blacksmiths and carpenters. Engineers and firemen. Machinists and helpers. Trackmen and helpers. All others at mine. Office employes.	$105 \\ 43 \\ 144 \\ 204 \\ 70 \\ 35 \\ 851 \\ 109$
Tota Nun	Total surfce l employes ber of days men worked during year	$\begin{array}{r} 1,561 \\ 11,414 \\ 164.6 \end{array}$

COAL MINE EMPLOYES CLASSIFIED BY OCCUPATION IN THE STATE OF COLORADO DURING YEAR ENDED DECEMBER 31, 1930

COAL PRODUCTION OF COLORADO FROM 1873 TO 1930, INCLUSIVE

Year	Tons	Year	Tons
1873	69,977	1902	7 522 923
1874	87,372	1903	
1875	98,838	1904	
1876	117,666	1905	
1877	160,000	1906	
1878	200,630	1907	
1879	322,732		
1880	375,000	1908	
	706,744	1909	
1881		1910	
1882	1,161,479	1911	
1883	1,220,593	1912	
1884	1,130,024	1913	
1885	1,398,796	1914	
1886	1,436,211	1915	
1887	1,791,735	1916	
1888	2,185,477	1917	
1889	2,400,629	1918	12,658,055
1890	3,075,781	1919	10,406,543
1891	3,512,632	1920	12,514,693
1892	3,771,234	1921	9,141,947
1893	3,947,056	1922	10,003,610
1894	3,021,028	1923	
1895	3,339,495	1924	
1896	3,371,633	1925	
1897	3,565,660	1926	
1898	4,174,037	1927	
1899	4,826,939	1928	
1900	5,495,734	1929	
1901	6,021,405	1930	
	0,0 = 1, 100		0,200,001

PRODUCTION BY COUNTIES BY MONTHS, 1930

Month	Arch- uleta	Boulder	Delta	Dolores	Elbert	El Paso	Fremont
January February March April June July July September October November December Totals	948 948	$\begin{array}{r} 68,412\\ 40,115\\ 36,324\\ 18,348\\ 20,460\\ 15,311\\ 16,254\\ 24,516\\ 43,169\\ 46,876\\ 42,081\\ 56,185\\ \hline \\ \hline \\ 428,051\\ \hline \end{array}$	$\begin{array}{r} 9,347\\ 5,663\\ 5,522\\ 1,489\\ 2,810\\ 2,747\\ 2,481\\ 3,265\\ 7,222\\ 7,317\\ 10,253\\ 12,207\\ \hline 70,323\\ \end{array}$	$\begin{array}{c} 1,596\\ 955\\ 911\\ 541\\ 500\\ 476\\ 252\\ 253\\ 276\\ 325\\ \dots\\ 6.085\\ \end{array}$	414 180 251 19 1,294 2,158	$\begin{array}{c} 54,217\\ 30,946\\ 37,067\\ 19,907\\ 20,871\\ 13,591\\ 13,945\\ 515,283\\ 20,688\\ 33,037\\ 38,384\\ 47,408\\ \hline \\ 345,344\\ \end{array}$	$\begin{array}{c} 65,930\\ 41,614\\ 17,818\\ 6,700\\ 35,250\\ 20,026\\ 23,550\\ 19,360\\ 32,267\\ 50,411\\ 48,472\\ 50,057\\ \hline \\ 411,455\\ \end{array}$

Month	Garfield	Gunnison	Huerfano	Jackson	Jefferson	La Plata
January February March May June July September October December Totals	$ \begin{vmatrix} 5,340\\3,730\\2,590\\1,724\\1,757\\1,111\\1,200\\1,601\\2,810\\3,837\\3,878\\4,263\\\hline33,841 \end{vmatrix}$	$\begin{array}{r} 47,818\\ 36,526\\ 25,158\\ 20,500\\ 31,366\\ 30,570\\ 38,165\\ 35,348\\ 55,929\\ 63,213\\ 54,164\\ 59,967\\ \hline \\ \hline \\ 498,724\\ \end{array}$	$\begin{array}{r} 242,569\\ 127,962\\ 70,549\\ 58,478\\ 92,931\\ 70,921\\ 94,076\\ 81,747\\ 110,338\\ 153,819\\ 137,438\\ 133,663\\ \hline 1,374,491\\ \end{array}$	$\begin{array}{r} 6,236\\ 5,205\\ 2,167\\ 2,165\\ 2,642\\ 2,044\\ 2,468\\ 2,788\\ 4,548\\ 7,075\\ 5,301\\ 6,123\\ \hline \hline 48,762\\ \end{array}$	$\begin{array}{r} 10,877\\ 8,261\\ 10,142\\ 9,266\\ 9,242\\ 7,041\\ 8,363\\ 7,973\\ 8,736\\ 11,909\\ 12,551\\ 16,724\\ \hline 121,085\\ \end{array}$	7,8095,9303,6293,3532,9243,2293,3833,4125,2095,7284,6837,72257,011

Month	Las Animas	Mesa	Moffat	Monte- zuma	Mont- rose	Ouray
January	250,352	13,615	474	797		
February	176.041	8,560	196	438		
March	164,385	5,536	145	396		
April	151,035	4,090	113	172		
May	129,930	4,479	100	313		
June	131,451	3,965	83	129		
July	136,965	4,555	16	155		
August	121,501	6,275	36	200		
September .	148,738	8,924	92	281		
October	172,860	8,874		608		
November .	165,223	9,841		660		
December	222,118	17,623	7,190	2,307	3,470	1,180
Totals .	1,970,599	96,337	. 8,445	6,456	3,470	1,180

Month	Pitkin	Rio Blanco	Routt	San Miguel	Weld	Total
January February March May June July August September October December Totals	$\begin{array}{r} 1,447\\894\\1,005\\1,003\\1,119\\1,183\\1,269\\1,362\\1,362\\1,356\\1,356\\1,483\\\hline\hline\\14,011\end{array}$	$\begin{array}{r} 753\\ 440\\ 327\\ 173\\ 179\\ 129\\ 136\\ 182\\ 380\\ 534\\ 621\\ 2,450\\ \hline 6,304 \end{array}$	$\begin{array}{r} 151,125\\77,811\\24,917\\15,597\\55,328\\38,874\\47,285\\43,249\\76,971\\115,353\\90,340\\100,951\\\hline\hline837,801 \end{array}$	1,433 1,433	$\begin{array}{r} 341,891\\ 172,760\\ 180,357\\ 72,031\\ 79,562\\ 50,314\\ 53,643\\ 67,814\\ 147,518\\ 211,053\\ 231,724\\ 285,113\\ \hline 1,893,780\\ \end{array}$	$\begin{array}{c} 1,281,019\\744,227\\583,196\\386,704\\491,763\\393,195\\448,161\\436,165\\675,227\\893,588\\856,970\\1,041,879\\\hline8,238,094\end{array}$

SHOWING INCRE.	ASE AND DECR	EASE BY CO	OUNTIES 1	929-1930
----------------	--------------	------------	-----------	----------

Counties	1929	1930	Increase	Decrease
Archuleta	408	948	540	
Boulder	479,643	428,051		51,592
Delta	72,273	72,323		1,950
Dolores	11,732	6,085		5,647
Elbert	3,003	2,158		848
El Paso	361,595	345,344		16,251
Fremont	526,927	411,455		115,472
Garfield	44,430	33,841		10,589
Gunnison	521,401	498,724		22,677
Huerfano	1,783,744	1,374,491		409,253
Jackson	56,318	48,762		7,550
Jefferson	98,755	121,085	22,330	
La Plata	74,464	57,011		17,453
Las Animas	2,554,897	1,970,599		594,293
Mesa	118,567	96,337		22,230
Moffat	6,025	8,445	2,420	
Montezuma	6,663	6,456		20'
Montrose	1,278	3,470	2,192	
Ouray		1,180	1,180	
Pitkin	18,757	14,011		4,746
Rio Blanco	6,771	6,304		46'
Routt	1,006,740	837,801		168,939
San Miguel	557	1,433	876	
Weld	2,169,116	1,893,780		275,336
Total	9,934,064	8,238,094		
Decrease				1,695,97

COKE PRODUCED IN 1930 BY COMPANIES AND COUNTIES

Companies	Total No. of Ovens Used	Total Tonnage	Counties	Total No. of Ovens Used	Total Tonnage
American Smelting and Refining Co	160	79,373	· La Plata	20	6,846
Colorado Fuel and Iron Co	135½	379,070	Las Animas Pueblo	$140 \\ 135\frac{1}{2}$	72,527 379,070
Total	295 1/2	458,443		295 1/2	458,443

REMARKS:

Average	number	of	days	worked.		309
Average	number	\mathbf{of}	men e	mployed	at the coke ovens	76
Number	of tons	of	coal m	ade into	coke	,800

LIST OF FATAL ACCIDENTS WHICH OCCURRED IN THE COAL MINES OF COLORADO DURING THE YEAR, 1930.

January 9—T. J. TURPIN, Scotch, machine miner, experience 2 years, age 36 years, married, two children, employed by the National Fuel Co., at the Puritan mine, Weld county, was killed by a fall of coal from face of room. A rib shot which was on the track side was partially standing, adhering somewhat to the coal roof. Deceased began to dig down the shot when the coal suddenly gave way, throwing him against a loaded car, injuring his head so severely that he died twenty minutes later. The night foreman had visited the place two hours earlier. The place was well timbered, also a temporary roadhead prop was set. The accident was a mishap and might have been less serious had the loaded car been removed before starting to take down the coal.

January 10—JOSEPH PICKLEMIER, Austrian, timberman experience 4 years, age 51 years, married, three children, employed by the Oakdale Coal Co., at Oakdale No. 2 mine, Huerfano county, was killed by a fall of coal and rock from the roof. All the work in this mine consists of pillars and stumps. Deceased was in the act of putting up a set of timbers when, without warning, the roof gave way breaking over the props and caught him, killing him. The place had been visited four hours prior to the accident by the mine foreman. The place was well timbered and a cross bar was being put up to permanently secure the roadway. The accident is classed as unavoidable.

January 11—WALTER LITTLE, American, pick miner, experience 20 years, age 38 years, single, employed by the Jewell Collieries Corp., at the Creston mine, Las Animas county, was killed by a fall of rock from roof. Deceased was mining at the face of his room when a rock gave way from an invisible slip in the roof breaking over the coal face. The place was visited by the mine foreman six hours prior to the accident. It was well timbered. The accident is classed as unavoidable.

January 13—CHRISTOPHER C. MELLOTT, American, rope-rider, experience 15 years, age 43 years, single, employed by the Alamo Coal Co., at the Alamo No. 1 mine, Huerfano county, was injured on the 11th inst. by being caught between cross bar and top of loaded car and died from the injuries sustained on the above date. Deceased was pulling a loaded car from a slant which pitches 25 degrees. The place is cross barred, all of uniform height. He stepped on front of load and told the assistant rope rider to bell it out. When the car started, he turned on the bumpers, his back towards the direction in which the car was running. He raised his head to look over the car and in doing so he was caught by a cross bar and pulled to the top of the car and injured so severely that he died from the effects. The accident was due to carelessness on part of deceased. January 16—NICK GANOFF, Bulgarian, pick miner, experience 17 years, age 43 years, married, four children, employed by Fruth & Micheletti at the Premium mine, Routt county, was killed by a fall of roof rock. Deceased was in his room shoveling coal into a car when a rock fell on him killing him instantly. The place had been examined by a mine official the evening before the accident and deceased was instructed to put up a prop, which he neglected to do. The accident might have been avoided had deceased timbered his place as per agreement and put up a roadhead prop. The accident is charged partly to a lack of proper supervision of the mine management and to neglect by the deceased in failing to set a prop as instructed.

January 22-JOE SKUFCA, American, rope rider, experience 5 years, age 21 years, single, employed by the Victor-American Fuel Co., at the Wadge mine, Routt county, was caught between an empty pit car and prop and killed instantly. Deceased was supervising the dropping of cars from the slope into the parting. Apparently while cars were still in motion, he tried to uncouple some of them from the trip and he got caught between a car and While there was sufficient clearance between the cars and prop. the rib there was not enough between the car and prop. The roof condition at the point of accident is heavy, props were set up temporarily to hold up the roof until cross bars could be set. When this work was done all props were removed but this one and one other at the inby about 10 feet. These props are located between the tracks on the parting, which was used as a gathering parting. Deceased came to his death through negligence of the company in not having the required clearance between cars and timbers as required by law.

January 29—JOHN N. CHASE, American, assistant mine foreman, experience 15 years, age 40 years, married, two children, employed by the Clayton Coal Co., at the Clayton mine, Weld county, was caught between empty car and rib and was crushed to death. A trip of sixteen empty cars were being pulled into the parting and the mule jerked the first four cars off the track. Deceased being close at hand assisted in placing the cars back on the track and stood between the empty track and the rib watching the motorman and helper spot the remaining trip, when suddenly two cars derailed and caught deceased between the corner of one of the cars and the rib and caused such injuries that death was immediate. The accident was a mishap for which on one can be held responsible.

February 4—BATISTA MARINO, Italian, machine miner, experience 27 years, age 58 years, married, two children, employed by the Canon Quality Coal Co., at the South Magnet mine, Fremont county, was killed by a fall of rock. Deceased was working on the machine in a room about 12 feet from roadhead, when a rock fell from a slip near face of coal. Timbers were set about 5 ft. 6 in. from face. The place had been visited at 4:00 p. m. or shortly before accident. No responsibility is placed on anyone. It was unforeseen and therefore classed as unavoidable.

February 10-JOHN KAMBIC, American, machine miner, experience 2 years, age 19 years, single, employed by the Colorado Fuel & Iron Co., at the Robinson No. 1 mine, Huerfano county, was killed by a fall of rock. Deceased and his father were working a room pillar and were in the act of removing their tools from the face when a slip gave way, catching the former and killing him instantly. Both were aware of the slip as they had set one prop under the right hand side of it, but it was 13 ft. long and 5 ft. wide, extending on both sides of the roadhead. On questioning of deceased's father (partner) why they had not set props under the slip when they knew it was there, and he said they could not set the props as there would not have been room left for the machine to cut the place. The accident was due to a lack of experience and judgment on part of deceased and partner and also in not getting the proper timbering instructions from the mine officials. The place had been visited by the mine foreman at 11:30 a. m. and the accident occurred at 2:30 p. m.

March 7—GEORGE WEST, English, electrician, experience 43 years, age 58 years, married, no children, employed by the Colorado Fuel & Iron Co., at the Morley mine, Las Animas county, was injured Nov. 14th. 1929, by a fall off of a building and died on the above date. Deceased was raising electric wires on the Y. M. C. A. building, the ladder on which he stood slipped and he fell about 9 ft. to the ground. He had his leg and hip fractured which resulted in his death.

March 10-THOMAS OBEROSLER, American, pick miner, experience 2 years, age 40 years, married, five children, employed by the Colorado Fuel & Iron Co., at the Morley mine, Las Animas county, was injured March 4th by a fall of top coal and rock and died on the above date. Deceased and his partner were working at the face of a room pillar. The assistant mine foreman had instructed them to put up a prop on the curve of the pillar where the roof was bad, showing a slip paralleling the working place. There was only one prop in the place and the mine foreman left to get some more props which he sent with the next trip of cars. However, instead of setting a prop as instructed, deceased started to load a car with coal from the rib, when nearly through the top coal gave way from the roof striking him. There was sufficient clearance to set the prop and this should have been done to protect the roof before loading coal. Both deceased and mine foreman are responsible for the accident. Deceased for not setting prop and the latter for leaving the place before it was made safe.

March 18—DOMENICK DI PAOLO, Italian, driver, experience 23 years, age 44 years, married, two children, employed by the Colorado Fuel & Iron Co., at the Toller mine, Las Animas county, came to his death by being run over by a loaded pit car. A trip of 12 loaded cars was left over on the parting from the previous day which was the regular rope trip. Two drivers are employed at this parting for the haulage of coal. One, at the time of accident, made a trip with two empty cars to two pillar places and returned with them loaded to the parting, runnning them to the drag which was on the rear end of the regular rope trip they became fastened by a draw-bar bolt into the hole of the drag. The rope rider started out with his trip but was not aware of the two cars on the drag. He traveled some distance until he reached a grade when the two cars broke loose from the drag and ran back through the parting, a distance of 181 ft., or 36 ft. beyond the parting switch where deceased was caught by the cars and run over and caused his death a few hours later. It is not known why deceased left the parting, whether he tried to stop the cars or attempted to run to a place of safety. The accident was unforeseen and is classed as unavoidable.

March 27—JOHN MODY, Pole, machine miner, experience 10 years, age 48 years, married, two children, employed by the Temple Fuel Co., at the Brodhead No. 9 mine, Las Animas county, was killed by a fall of rock. Deceased was working in a machine room that had just been cut. He was shoveling coal from the side of the room and had removed sufficient coal to expose a length of unsupported roof, measuring 7x9 ft., when a slab of draw slate fell on him killing him. The timbering agreement at this mine is three feet between props. The fire boss, an hour before the accident, examined the place and put a chalk mark on the roof for a prop. Deceased neglected to set this prop. The place was well timbered and according to agreement with the exception of where deceased was working. The accident could have been avoided had deceased been more careful and timbered his place as instructed.

April 7-PETE ARGADY, Hungarian, pick miner, experience 25 years, age 51 years, single, employed by the Moffat Coal Co. at the Oak Hills No. 2 mine, Routt county, came to his death by being struck by a runaway car. Deceased was loading a car on a day when the mine was not working and handled or switched his own cars, which is a custom the management allows some of its employes. On the day of the accident, deceased was working on the old south entry, the grade being about one per cent. He was far enough in to clear one car off the switch and one man can push a car anywhere on the entry. He pulled a loaded car out of his place and let it stand about 120 feet away from him. He took in another car but failed to close the switch for the straight track. He had nearly loaded his second car when the motor came to take the loads out. They bumped into the loaded cars to couple them on the entry. The brake on the car deceased had placed on the entry did not hold and it ran down through the open switch which deceased had not closed. It caught him between the car and face and crushed him to death. If the brake on the car had been inspected before taking it into the mine, the accident might have been avoided. The responsibility for this death rests with the company.

April 15—JOHN LANER, Austrian, machine miner, experience 20 years, age 58 years, widower, one child, employed by the Bear Canon Coal Co., the Bear Canon No. 6 mine, Las Animas county, was killed by a fall of coal. Deceased was cutting the coal on the left side of his working place to relieve the coal in the center of the mahcine cut. He had sheared it about two feet when the coal gave way from a half circular slip in the roof about the center of the machine cut, it dislodged a roadhead prop and fell on him, injuring him so severely that he died three hours later. The place had been visited by the mine foreman two and one-half hours prior to the accident and it was well timbered. The accident is classed as unforeseen.

April 28—DAVID A. URQUHART, American, mine foreman, experience 32 years, age 48 years, married, two children, employed by the Newlan Creek Coal Co., at the New Creek mine, Fremont county, was killed by a fall of roof. A miner had reported to him that there was a bad piece of roof at the face of main slope and extending about 10 feet along the longwall face. He tested it and found it heavy and was in the act of building a crib under it, when a slab of rock gave way, displacing three props and fell on deceased, killing him instantly. The accident was unavoidable as the place was well timbered.

May 5--WALTER DLUGOPOLSKI, Pole, rope-rider, experience 12 years, age 28 years, married, two children, employed by the Colorado Fuel & Iron Co., at the Pictou mine, Huerfano county, was killed by a trip of empty cars running over him. Deceased was making first trip in the morning and was riding between the rope car and second car as the trip was being hoisted in. The rope car struck a prop on the lower rib and was derailed throwing deceased between first and second car. Three cars passed over him before the trip was brought to a stop. He was injured so severely that he died 45 minutes later. At the point where the trip was derailed, the clearance between the lower rib props and the cars was insufficient, causing the cars passing to rub against one of these props, consequently the accident is due to the negligence of the company in not maintaining proper clearance on the haulageways.

May 9—WILLIAM R. WESTWOOD, American, pick miner, experience 12 years, age 32 years, married, two children, employed by the Pinnacle-Kemmerer Fuel Co., at the P. K. No. 1 mine, Routt county, came to his death by electrocution. Deceased had just finished drilling three holes with an electric drill and as he was taking it away, he came in contact with the car which was standing about 50 feet from the face of the room. Evidently he touched the iron part of the car which caused a complete circuit and enveloped him, and from this shock he died. It is possible, that had the voltage been less on the machine, his life might have been saved. All efforts to restore him failed. The accident was a mishap but in order to avoid any further accidents of this nature, the department recommended:

"That the voltage used for drilling be reduced to the minimum."

May 19—MOSE NELSON, American, driver, experience 20 years, age 35 years, married, two children, employed by the Calumet Fuel Co., at the Calumet No. 2 mine, Huerfano county, was crushed to death between car and rib. Deceased was pulling two loaded cars when his clothing or belt caught on the first car dragging him between the car and rib on the curve at the intersection of the room neck and entry. The accident was unforeseen and is classed as unavoidable.

May 5—JOE VELASQUEZ, Mexican, pick miner, experience one year, age 19, married, no children, employed by the Davich Coal Co., at the Davich mine, Las Animas county, was injured February 2nd, 1930, by a fall of rock and died on the above date. Deceased was working single in a room when a rock fell on him and broke his back. Only one other man was working in the mine and it was two hours before the injured man was brought to the surface. The accident was probably due to the lack of competent supervision by the mine owner or operator as deceased had very little experience in protecting himself.

June 4-MARSIAL FUENTZ, Mexican, loader, experience seven years, age 25 years, single, employed by the Hayden Coal Co., at the Hayden No. 3 mine, Routt county, was killed by a runaway pit car. Deceased and his brother were drilling holes in the face of the dip, 45 feet below neck of room No. 5. One cut had been taken out of this room neck but not enough to lay a switch, therefore a car had to be set on safety blocks and loaded on the main line. There were several other cars set on safety blocks some distance apart on a pitch of about 10%. The rope rider came down to pick up the loads and in some manner a car on the pitch went over the blocks striking the cars at the face of the dip and pinned deceased between the car and face, killing him instantly. Had deceased stayed where he was drilling, he would have escaped being struck, but hearing the bumping of the cars, he feared danger and jumped directly in front of the car. The accident was due to the hazard of mining as apparently the proper signals for gathering the cars were given and obeyed.

August 13—ORESTO CATTANI, Italian, weigh-boss, experience 8 years, age 28 years, married, three children, employed by the Vickers Coal Co., at the Kenneth mine, Las Animas county, was caught between a hoisting rope and sheave wheel causing his death. Deceased was using a tie to put on a loaded pit car which had jumped the track on the tipple. The tie slipped striking his foot causing him to jump back and he fell 3½ feet to the empty track and his arm was caught in rope pulling it into sheave wheel severing it at the shoulder. He died about eight hours later. The accident was unforeseen and is classed as unavoidable.

August 16—GEORGE KIMMICK, Italian, machine runner, experience 22 years, age 34 years, single, employed by the Canon-Reliance Coal Co., at the Canon mine, Fremont county, was injured by a fall of rock on the 14th and died on the above date. Two timbermen were setting cross bars on a slant between entries. They called Kimmick to see if the timbers they had set would clear the machine and while looking at the timbering a slab of rock broke off at the edge of the cross bars striking deceased and causing such severe injuries that he died two days later. The mine foreman had visited the place at 8:00 a. m. and the accident occurred at 2:00 p. m. It was unforeseen and is classed as unavoidable.

August 17—VIRAN T. CASSIDY, American, electrician, experience 3 years, age 32 years, single, employed by the Hayden Coal Co., at the Hayden No. 3 mine, Routt county, was killed by coming in contact with a high tension wire. He was in charge of installing a new plant and was at work with two helpers putting up a switchboard when in some manner he came too close to the concrete wall where there is a voltage of 23,000 v. and received a shock which killed him instantly. The accident might have been avoided had deceased gone to the transformer room which is on top and turned off the switch before going to work. The accident is a misadventure for which no one can be held responsible.

October 1-ALBERT HAUGH, American, pumper, experience 17 years, age 59 years, widower, three children, employed by the Empire Coal Mining Co., at the Empire mine, Las Animas county, was struck by an empty rope trip and died three hours later from injuries sustained. Deceased stepped out of a cross entry in front of an empty trip coming down the slope. The rope rider saw him and jumped off the trip to bell the engineer to stop but before the trip was halted, it had struck deceased, knocking him to one side and derailing the trip. Deceased said that he tried to get out of the way of the trip but his foot slipped on the rail and he could not get away in time. The place where the accident occurred had a six foot clearance on each side. Had deceased looked up the slope before he stepped out he would have seen the trip coming and the accident would have been avoided.

October 2—SALVADOR A. CRUZ, Mexican, machine miner, experience 25 years, age 44 years, married, two children, employed by the National Fuel Co., at the Puritan mine, Weld county, was killed by a fall of coal and rock. Deceased and partners were extracting pillars on a midnight shift. About 2:30 a. m. the fire boss examined the place and found the top coal a little drummy and ordered extra props. Later on deceased and partners noticed the place taking on a little weight and set several more props, when suddenly a bump occurred and a portion of rock and top coal gave way from some well defined slips which formed a pot. The place was apparently well timbered and the men were practical miners. The accident was due to the rock strata taking a sudden slip at the line of face and while not visible, practically cut out the top of coal at that point. No one is held responsible for the accident.

October 2—FRED GIULIANO, Italian, timberman, experience 27 years, age 49 years, married, three children, employed by the Victor-American Fuel Co., at the Delagua mine, Las Animas county, was killed by a fall of rock. Deceased was in the act of putting up a cross bar on the haulage road from the chain pillar about 50 feet from the working face when a large pot rock fell on him killing him instantly. The rock dropped out from between the roadside props right over the track. The place was well timbered and was visited by the mine foreman at 11:30 a. m., and the accident occurred an hour later. The accident is classed as unavoidable.

October 18-HORACE STOKES WISEMAN, American, machine miner, experience 18 years, age 46 years, married, two children, employed by the Clayton Coal Co., at the Clayton mine, Weld county, was killed by being caught between loaded car and rib. Deceased and partners were cutting and loading their own coal in a pair of diagonal entries turned off the second northeast, upper seam, to connect with the new Morrison mine. Deceased was handling the last car for the day to the parting. The grade was about 3% against the loaded car. Deceased was walking in front of the car behind the mule carrying an empty keg. There were no eye witnesses as to what took place but from examination of the place and statements made by one of the partners who was close behind with an electric machine and saw him just as he was caught, that evidently he had slipped in some manner with his head going into the rib and owing to the tail chain being only about 4 feet long, the loaded car struck him at the same time forcing him into a position that caused his neck to break resulting in instant death. The accident is a misadventure for which no one could be held responsible.

October 29—WILLIAM HORHAN, American, driller, experience 14 years, age 29 years, married, two children, employed by the Barbour Coal Co., at the Alamo No. 2 mine, Huerfano county, was killed by a fall of rock and top coal. Deceased was running an electric drill for Cardox shooting. He was busy in a room No. 2 off 2nd dip when a runaway trip of empty cars came down the dip knocking out cross bars enroute. Deceased came out of the room to see if anyone had been caught by the trip and when he reached the point between rooms No. 3 and No. 4 where two cross bars had been knocked out, about two tons of top coal and rock fell on him killing him instantly. The second left entry has $1\frac{1}{2}\%$ in favor of the loaded trips. A ten-car trip is operated on the second left entry between main slope and second dip. The hoist on the second dip is not set back far enough to accommodate a ten-car trip without detaching rope from the front car and reattaching it to some other car further back on the trip. While this was being done, the trip in some manner started down second dip. On this particular trip a truck was attached, which no doubt made switching more difficult. The man in charge of the trip was not the regular rope rider. The company and rope rider are held equally responsible for the accident.

November 6—MATT STAVANO, Austrian, pick miner, experience 25 years, age 50 years, married, seven children, employed by the Huerfano Coal Co., at the Ludlow mine, Las Animas county, was killed by a fall of rock. Deceased was brushing the bottom at the face of his working place when a slab of draw slate fell from between the last cross bar and safety prop at the face. The distance between cross bar and safety prop at the face was three feet and the place was well timbered. The fire boss visited the place at 5:30 a. m. and the accident occurred at 8:00 a. m. No one is held responsible for the accident as it was unforeseen and is classed as unavoidable.

November 8—MILBURN MAY, American, trapper, experience five months, age 16 years, employed by the Victor-American Fuel Co., at the Chandler mine, Fremont county, was injured on Oct. 31st, by being dragged by a trip and died on the above date. Deceased was trapping and opened the door to let a trip pass through and in some manner his right foot was caught in the trip and he was dragged 120 feet. No one could explain how he was caught for there is sufficient space around the door and a shelter hole for the trapper to stay when a trip is passing, also there is a rope attached to the door so that it can be opened from the shelter hole. Apparently the accident was a misadventure for which no one can be held responsible.

November 8-JAMES CAIRNEY, American, loader, experience 22 years, age 39 years, married, no children, employed by the Alamo Coal Co., at the Alamo mine, Huerfano county, was killed by a fall of rib coal. Deceased was employed in the first raise panel of the third left entry and was driving a raise slant to connect the first and second panels. The pitch of the slant is 50%. The mine foreman visited the place about 8:00 a. m. and the accident occurred at 12:15 p.m. The mine foreman instructed deceased and his partner to widen the slant by taking coal off the lower rib with a pick if possible, if not, to drill a hole so it could be shot off. A hole was drilled and deceased was working about 20 feet back from the face of slant shoveling coal into the chute when an invisible slip in the coal of the lower rib gave way allowing a chunk of coal, weighing about 15 tons, to slide down, catching deceased and causing such injuries that he died several The accident was unforeseen and is classed as unhours later. avoidable.

November 12-J. W. SHEFFIELD, American, timberman, experience 33 years, age 47 years, married, one child, employed by the National Fuel Co., at the Puritan mine, Weld county, was killed by a fall of top coal and rock. The place was visited by the mine foreman at 2:40 p. m. and accident occurred at 3:00 p. m. Deceased and his partner were working in room No. 12 off the eleventh west off sixth south where they were to bring about a cave in the space which was made after extracting the coal from a lift taken through the room pillar. In order to facilitate the work they were weakening several of the props by chopping notches in them. When deceased was at the last prop set under the outby cross bar and started to notch it, the place suddenly began caving owing to a large unseen slab of rock above the top coal directly over the cross bar which was thrown out and caught deceased before he could get away and crushed him to death. Deceased was considered a very good workman and experience in making these caves in pillar sections. The accident was unforeseen and is classed as unavoidable, although it is likely that it might not have happened had the timbermen shot out, rather than chopping out of the props. Management has agreed to try in the future to shoot out the timbers whenever a cave is to be made.

November 29-JOSEPH VARRA, JR., American, label paster, age 17 years, employed by the National Fuel Co., at the Monarch No. 2 mine, in the railroad yard, Boulder county, was caught between two railroad cars and crushed to death. Deceased was leaning against the end of an empty railroad car, 155 feet west of the tipple at the intersection of the nut and slack tracks, when a box car, probably a few feet away, was pulled up and caught him, killing him instantly. A stationary steam hoist located north of the tracks handles cars at the different chutes. The car dropper had dropped three empty coal cars to place them on the slack coal and nut coal tracks. When the cars got to the intersection of the two tracks, he saw that the cars would not pass the box car on the nut track so he held them up to get proper clearance and he decided to drop box car down a short distance to get the needed clearance for these cars to pass. To do this car is pulled up and then allowed to drop back of its own weight. When box car was pulled up it caught deceased between end of open car and end of box car. It was a misadventure, although if proper precaution had been taken to see that everything was in the clear before the cars were moved, the accident might have been avoided.

December 2—ARTE PENNY, American, machine miner, experience 30 years, age 48 years, married, five children, employed by the National Fuel Co., at the Puritan mine, Weld county, was injured by a fall of face coal on the 1st of December and died on the following day. Deceased was working at the face of his room taking down loose coal when a chunk of it fell on his right foot discoloring nail on big toe but not breaking the skin. Place was in good condition and well timbered. After the accident deceased

complained of being stuffy and pains in his chest. But he and his son, who was working with him, finished the shift and on his way out his pains became very severe and a motor picked him up and took him to the bottom of the shaft and then he was brought to the mine office where a doctor treated him and was sent to the St. Vrain hospital at Longmont where he died 35 hours later. The accident occurred at 11:30 a. m. and the mine foreman visited the place about 2:00 p. m. and they said nothing to him about it. Also, the mine foreman had visited the place a few minutes before the accident. Apparently the injury seemed minor to them but it terminated in death. The doctors claim that the shock of the bruised toe caused embolism or a clot on the heart which proved fatal to him. The accident was unforeseen and is therefore classed as unavoidable.

December 27—JOSEPH MICKLICH, Austrian, pick miner, experience not stated, age 44 years, married, no children, employed by the South Canon Mine Leasing Co., was injured December 2nd by falling against the edge of a wooden slab used as a step on the pitch of the coal. He struck his abdomen but continued to work and finished the shift. However, a few days later his condition became serious as he had ruptured his abdomen and an abscess formed which necessitated an operation and he died shortly after. The accident occurred while deceased was performing his duty and the cause was unforeseen and is classed as unavoidable.

In 1930 five deaths occurred in coal mines that are not charged to the industry, as they were due to natural causes, towit:

January 1st-John Wolny, heart failure, Liley Mine.

April 18th-William Moss, heart failure, McNeil Mine.

September 2nd-Green Nelson, heart failure, Harris Mine.

October 10th-Chas. S. Humphrey, heart failure, Boulder Valley.

December 12th-Adolph Vallegos, heart failure, Vallegos.

LIST OF SUCCESSFUL CANDIDATES WHO PASSED THE EXAMINATION FOR COAL MINE OFFICIALS, JULY 9TH, 10TH AND 11TH, 1930.

FIRST CLASS MINE FOREMAN

Certificate Number Name Add	ress
110-30 Arnold, G. O Oak Cree 44-30 Andrew, Frank. Kou 47-30 Banecks, K. N. Rugl 129-30 Beebe, John. Segund 92-30 Bickerton, Fred S. Colorado Spring 54-30 Bowen, Wm. Mt.	t, Colo. oy, Colo. lo, Colo. s, Colo.
126-30 Boyle, Robert. Denve 24-30 Busheff, Nick M. Denve 39-30 Campbell, Andrew. Tiog 20-30 Currie, Henry R. Walsenbur 132-30 Fennell, Wesley. Colorado Spring	er, Colo. er, Colo. a, Colo. g, Colo. cs, Colo.
68-30 Ferguson, Wm. Frederin 35-30 Garcia, Rudolf. Cokeda 9-30 Gardiner, Peter. Baldwi 28-30 Godfrey, Malvern J. Crested But 2-30 Harris, Lisle N. Louisvil 112-30 Hayres, Alfred. Oak Crev	le, Colo. n, Colo. te, Colo. le, Colo.
114-30 Haynes, ArthurOak Cree 123-30 Hurst, ClydeMt. Harr 62-30 Irwin, EdwardAlam 130-30 Kilpatrick, James CAlam 70-30 Lemberg, JosephLafayet	k, Colo. is, Colo. o, Colo. te, Colo.
103-30 McIntyre, W. D. Oak Cree 4-30 Madsen, Matt. Oak Cree 63-30 Martinez, Fred. Alam 82-30 Mick, Rudolph F. Oak Cree 106-30 Mishork, Walter. Rou	k, Colo. k, Colo. o, Colo. k, Colo. tt, Colo.
170-30 Moore, R. W., Jr. Coalmoi 128-30 Neish, W. H. MacGrego 42-30 Palmetto, Dominic Grand Junctio 55-30 Park, Daniel Dacor 33-30 Pasic, John L. Dacor 115-30 Roberts, James Denv.	or, Colo. on, Colo. o, Colo. te, Colo.
112-30 Roberts, Value H. Morle 26-30 Smith, Willie H. Morle 29-30 Vidmar, Chas. Mt. Harr 124-30 Wakely, Thomas. Denve 171-30 Whiteside, F. W. Denve 169-30 Williams, Harold T. Grand Junctic 23-30 Williams, Myron D. Grand Junctic	y, Colo. s, Colo. er, Colo. er, Colo. on, Colo.
127-30 Winner, ClydeDelagu 12-30 Wirth, Vernon JLudlo	a, Colo.

FIRST CLASS ASSISTANT MINE FOREMAN

1 - 30	Thomas.	John	W		Louisville.	Colo.
--------	---------	------	---	--	-------------	-------

FIRE BOSS

89-30	Almond, John DCokedale,	Colo.
90-30	Ausec, FrankColorado Springs,	
104 - 30	Bacco, AlbertOak Creek,	
108-30	Balek, FrankFrederick,	
120 - 30	Barton, Thomas EmmettColorado Springs,	Colo.
18-30	Battiste, L. EDelcarbon,	
84-30	Beebe, Arthur RoySegundo,	Colo.
85-30	Bennett, John HGrand Junction,	Colo.
27 - 30	Benton, R. JMt. Harris,	Colo.
76 - 30	Bon, JosephBrodhead,	Colo.
118 - 30	Brinker, ElmerCoalmont,	Colo.
105 - 30	Bruder, LouisPinnacle,	Colo.
117 - 30	Chedsey, John CCoalmont,	Colo.
83-30	Clipp, Roy TCedaredge,	Colo.
111 - 30	Collister, F. CDelagua,	Colo.
66-30	Conners, Stewart DAguilar,	Colo.
77-30	Conway, Leroy Chas	Colo.
64-30	Costa, Christopher LColorado Springs,	Colo.
74 - 30	Costa, KellyBrodhead.	Colo,
56 - 30	Cullar, James TMt. Harris,	Colo.

Certific	ate	
Number		s
36-30	Covert. Joe	Colo
75-30	Dale, G. R	Colo.
34-30	Dalrymple, Robert FDenver,	Colo.
32 - 30	Despod, SteveMt. Harris,	Colo.
$\begin{array}{r} 6-30\\ 122-30\end{array}$	Dirkes, RobertLouisville,	Colo.
86-30	Elliott Robert Colorado Springs	Colo.
14 - 30	Farris, James A	Colo.
22-30	Eadie, GeorgeDelcarbon, Elliott, RobertColorado Springs, Farris, James AMorley, Friel, MikeDelcarbon,	Colo.
69-30	Galasini, DomnickPictou,	Colo.
98-30	Garrett, Charles RBoncarbo,	Colo.
58-30	Gasper, Lewis Lafayette,	Colo.
$ \begin{array}{r} 101 - 30 \\ 48 - 30 \end{array} $	Giogon W I	Colo.
71-30	Gilmour, James.	Colo.
73-30	Friel, Mike. Delcarbon, Galasini, Domnick. Pictou, Garrett, Charles R. Boncarbo, Gasper, Lewis. Lafayette, Gibboney, E. W. Oak Creek, Gilmour, James. Louisville, Graham, James W., Jr. Lafayette, Harris, Frank W. Mt. Harris, Harris, Sam. Brodhead, Harrison, Mark Oak Creek	Colo.
78-30	Harmon, John WMt. Harris,	Colo.
91 - 30	Harris, Frank WErie,	Colo.
53-30	Harris, SamBrodhead, Harrison, MarkOak Creek,	Colo. Colo.
45 - 30 25 - 30	Harrison, Mark	Colo.
10-30	Housh Robert R Matheson	Colo.
109-30	Housh, Robert RMatheson, Jairell, Faulkner FBerwind,	Colo
43-30	Johnson, RobertLafayette,	Colo.
30-30	Johnson, Robert LCrested Butte,	Colo.
52-30	Johnson, RobertLafayette, Johnson, Robert LLafayette, Larkin, Arthur V	Colo.
$88 - 30 \\ 59 - 30$	Lee, RaymondColorado Springs, Levi, JuliusAlamo,	Colo.
3-30	Lewis Chas E Walsenburg	Colo.
97-30	Lewis, Chas. E	Colo.
40-30	Lynch, TheoColorado Springs,	Colo,
46-30	McCallum, C. M Mt. Harris,	Colo.
65-30	McIlwee, Wm. FAguilar,	Colo. Colo.
$ \begin{array}{r} 119-30 \\ 94-30 \end{array} $	Manka, JohnTrinidad,	Colo.
131-30	Marsh, Walter JrCokedale, Mathews, JohnOak Creek,	Colo.
99-30	Mathews, Joseph, SrOak Creek,	Colo.
102-30	Mathews Joseph Ir Oak Creek.	Colo.
19 - 30	Mitchell. RoyDelcarbon,	Colo.
67 - 30	Montero, John BDelagua, Morgan, TedSuperior,	Colo. Colo.
$96 - 30 \\ 7 - 30$	Munn, James J	Colo.
121 - 30	Neish, George F	Colo.
15-30	Neish, George FDenver, Neish, Wm. KMacGregor.	Colo.
81-30	Odendahl, Walter B	Colo.
8-30	Partch, Joseph EBaldwin, Pennington, Newell ACoalmont,	Colo.
116 - 30	Pennington, Newell A Coalmont, Phelp, David C Frederick,	Colo.
5-30 80-30	Pickens, AndrewAlamo,	Colo.
79-30	Price, DavidAlamo,	Colo.
95-30	Roberts. WmSuperior,	Colo.
100 - 30	Rossi, ThomasOak Creek.	Colo.
49-30	Scavarda, Mike Canon City,	Colo.
$38 - 30 \\ 72 - 30$	Schelessinger, wm. E	Colo.
11-30	Siner Ambrose C. S. Placita,	Colo.
31-30	Skinner, WalterBear River,	Colo.
37-30	Rossi, Thomas. Oak Creek. Scavarda, Mike. Canon City. Schelessinger, Wm. E. Mt. Harris, Schwelka, Carlo. Brodhead, Siner, Ambrose C. S. Placita, Skinner, Walter. Bear River, Skufca, Tony. Mt. Harris, Slate, M. J. Colorado Springs, Smith Fred E. Frederick.	Colo.
93-30	Slate, M. JColorado Springs,	Colo.
87-30	Curith Labor D	Colo
$51 - 30 \\ 50 - 30$		Colo.
61 - 30		C010.
57 - 30		Colo
16 - 30	Todd, GeorgeMacGregor.	Colo.
125-30	Tuck, J. T Alamo,	Colo.
$113 - 30 \\ 60 - 30$	Twibey, George EdwinRoutt,	Colo.
60-30 107-30	Watsh, Aron	Colo.
13 - 30	West, WmMorley,	Colo.
21-30	Williamson, HenryDelcarbon,	Colo.
17-30	Tuck, J. T. Alamo, Twibey, George Edwin. Routt, Walsh, Aron. Mt Harris, Watts, Roy. Oak Creek, West, Wm. Morley, Williamson, Henry. Delcarbon, Winters, Howard. Oak Creek,	C010.

RECEIVED

DEC 1 2 1994

COLORADO STATE LIBRARY