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BUREAU OF MINES

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14th Avenue and Sherman Street

DENVER 2, COLORADO

ANNUAL REPORT

for the Year

1957



WALTER E. SCOTT, JR.

Commissioner of Mines

Publication Approved by James A. Noonan, State Controller



20 GOLDEN BELL PRESS



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LETTER OF TRANSMITTAL

May 1st, 1958

Honorable Steve McNichols
Governor of Colorado
State Capitol Building
Denver 2, Colorado

Dear Governor McNichols:

In compliance with the requirements of the law, Chapter 92, Article 32, Section 11 of the Colorado Revised Statutes 1953, I have the honor to transmit herewith the Report of the State Bureau of Mines for the year 1957.

Respectfully submitted,

Walter E. Scott, Jr.
Commissioner of Mines

PERSONNEL OF
THE COLORADO BUREAU OF MINES
1957

WALTER E. SCOTT, JR., Commissioner of Mines Central City
G. A. (BUD) FRANZ, JR., Deputy Commissioner.....Denver
NORMAN R. BLAKE, Inspector, District No. 1.....Black Hawk
FRED E. THEOBALD, Inspector, District No. 2.....Canon City
JOHN W. DOYLE, Inspector, District No. 3.....Leadville
ELZIE D. RAY, Inspector, District No. 4.....Montrose
JOSEPH L. KEATING, Deputy Inspector.....Leadville
JOHN H. PAKKA, Deputy Inspector.....Telluride
RICHARD C. GROOM, Minerals.....Denver
MARGARET G. LAWRENCE, Administrative Asst.....Denver
THELMA L. MacMANUS, Account Clerk.....Denver
NAOMI S. JONES, Clerk Stenographer.....Denver
AGNES K. BRENNAN, Clerk Typist.....Denver

DISTRICTS OF INSPECTION

COLORADO BUREAU OF MINES

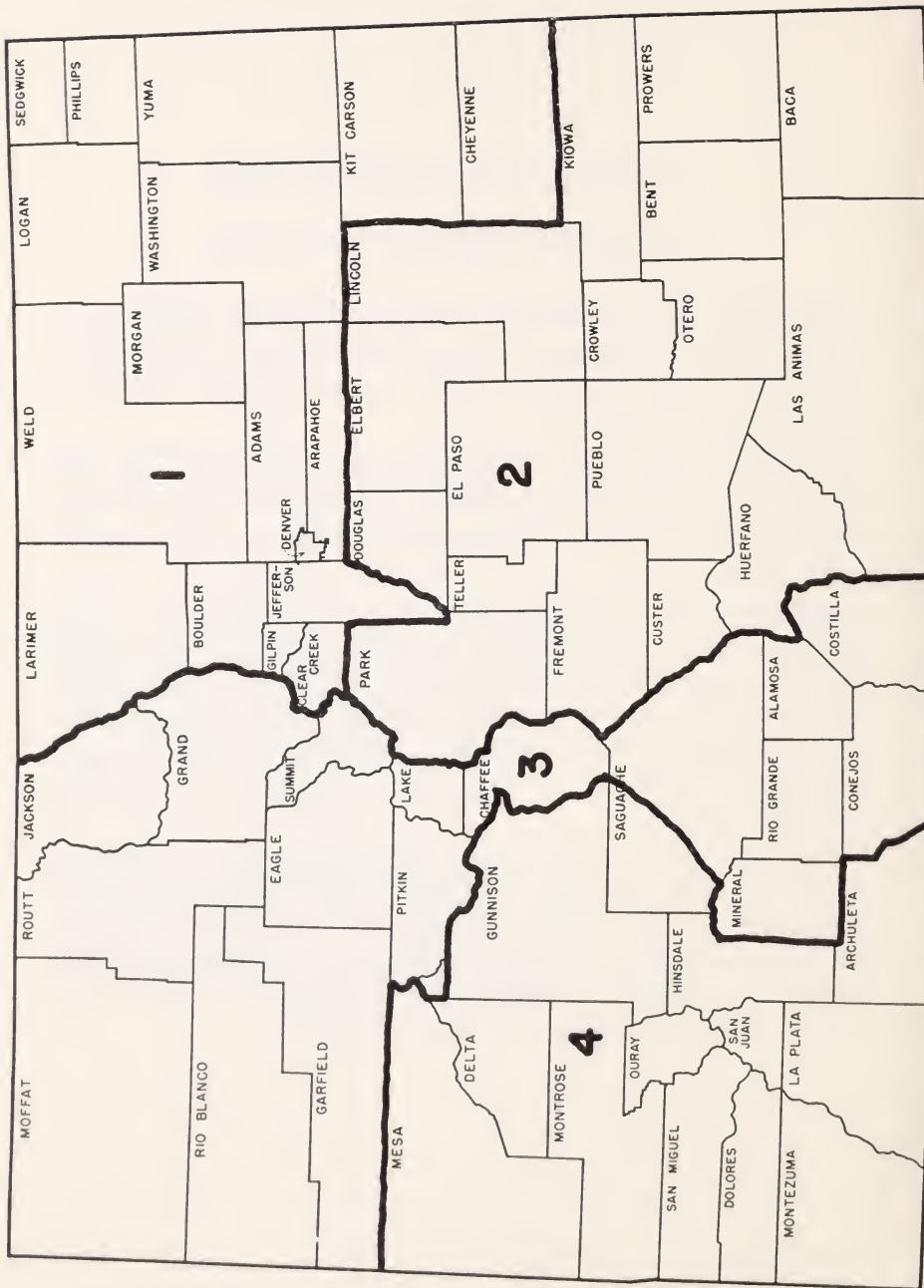
DISTRICT NO. 1, all of the following counties: Adams, Arapahoe, Boulder, Cheyenne, Clear Creek, Denver, Gilpin, Jefferson, Kit Carson, Larimer, Logan, Morgan, Phillips, Sedgwick, Washington, Weld, and Yuma.

DISTRICT NO. 2, all of the following counties: Baca, Bent, Crowley, Custer, Douglas, Elbert, El Paso, Fremont, Huerfano, Kiowa, Las Animas, Lincoln, Otero, Park, Prowers, Pueblo, and Teller.

DISTRICT NO. 3, all of the following counties: Alamosa, Chaffee, Conejos, Costilla, Eagle, Garfield, Grand, Jackson, Lake, Mineral, Moffat, Pitkin, Rio Blanco, Rio Grande, Routt, Summit, and that part of Gunnison County in the extreme northwest corner and lying north of the 39th degree of latitude, and that part of Saguache County lying south and east of the Continental Divide.

DISTRICT NO. 4, all of the following counties: Archuleta, Delta, Dolores, Hinsdale, La Plata, Mesa, Montezuma, Montrose, Ouray, San Juan, San Miguel and Gunnison County, except the extreme northwest corner lying north of the 39th degree of latitude and that part of Saguache County lying north and west of the Continental Divide.

MAP SHOWING DISTRICTS OF INSPECTION



COMMISSIONERS OF MINES

HARRY A. LEE.....May 11, 1895—May 10, 1903
E. L. WHITE.....May 10, 1903—May 10, 1907
T. J. DALZELL.....May 10, 1907—May 10, 1911
T. R. HENAHEN.....May 10, 1911—May 10, 1915
FRED CARROLL.....May 10, 1915—May 10, 1919
HORACE F. LUNT.....June 1, 1919—June 1, 1923
JOHN T. JOYCE.....June 1, 1923—June 12, 1939
EDWARD P. ARTHUR.....June 12, 1939—August 26, 1943
FRED JONES.....September 27, 1943—April 25, 1950
WALTER E. SCOTT, JR.....May 3, 1950

PUBLICATIONS OF THE BUREAU OF MINES

BULLETINS

- Bulletin No. 1, Recommendations for Safety Appliance in Mining, Harry A. Lee, Commissioner of Mines, 1896.
- Bulletin No. 2, Precious Metal Production for the Year 1898, Harry A. Lee, Commissioner of Mines, 1899.
- Bulletin No. 3, Mining Laws, Relative to Bureau of Mines Precious Metal Production, Harry A. Lee, Commissioner of Mines, 1899.
- Bulletin No. 4, Precious Metal Production, Harry A. Lee, Commissioner of Mines, 1901.
- Bulletin No. 5, Precious Metal Production, Harry A. Lee, Commissioner of Mines, 1902.
- Bulletin No. 6, Regulations Relative to the Construction, Equipment and Operation of Metalliferous Mines, Mills and Metallurgical Plants, Recommendations and Mineral Production for 1905, E. L. White, Commissioner of Mines, 1906.
- Bulletin No. 7, Federal and State Laws Relating to Mining, Fred Carroll, Commissioner of Mines, 1916.
- Supplement to Bulletin No. 7, Mining Laws Enacted by the Twenty-First General Assembly, Fred Carroll, Commissioner of Mines, 1917.
- Supplement No. 2 to Bulletin No. 7, Amendments to the Mining Laws Enacted by the Twenty-Second General Assembly, Horace F. Lunt, Commissioner of Mines, 1919.
- Supplement No. 3 to Bulletin No. 7, Amendments to Laws Related to Mining Enacted by the Twenty-Third General Assembly, Horace F. Lunt, Commissioner of Mines, 1921.
- Supplement No. 4 to Bulletin No. 7, Amendments to Laws Relating to Mining Enacted by the Twenty-Fourth General Assembly, Horace F. Lunt, Commissioner of Mines, 1923.
- Bulletin No. 8, The Oil Shales of Northwestern Colorado, Horace F. Lunt, Commissioner of Mines, 1919.
- Bulletin No. 9, Mine Safety Standards, Horace F. Lunt, Commissioner of Mines, 1920.
- Bulletin No. 11, Federal and State Laws Relating to Mining, John T. Joyce, Commissioner of Mines, 1931.
- Bulletin No. 12, Mining Laws of Colorado, Edward P. Arthur, Commissioner of Mines, 1942.
- Bulletin No. 13, Mining Laws of Colorado, Fred Jones, Commissioner of Mines, 1946.
- Bulletin No. 14, Mining Laws of Colorado, Fred Jones, Commissioner of Mines, 1949.
- Bulletin No. 15, Oil Well Safety Laws, Walter E. Scott, Jr., Commissioner of Mines, 1953.

- Circular No. 1, Location of Lode and Placer Mining Claims, Walter E. Scott, Jr., Commissioner of Mines, 1953.
- Bulletin No. 16, Colorado Mining Laws with Rules and Regulations, Walter E. Scott, Jr., Commissioner of Mines, 1954.
- Circular No. 1, Revised, Location of Lode and Placer Mining Claims, Walter E. Scott, Jr., Commissioner of Mines, 1957.

REPORTS

- Report of Bureau of Mines, Colorado, from its establishment in May, 1895, to November 30, 1896, Harry A. Lee, Commissioner of Mines, 1896.
- Report for the year 1897, Harry A. Lee, Commissioner of Mines, 1898.
- Report for the Year 1898, Harry A. Lee, Commissioner of Mines, 1899.
- Biennial Report for the Years 1899-1900, Harry A. Lee, Commissioner of Mines, 1900.
- Biennial Report for the Years 1901-1902, Harry A. Lee, Commissioner of Mines, 1903.
- Biennial Report for the Years 1903-1904, E. L. White, Commissioner of Mines, 1905.
- Biennial Report for the Years 1905-1906, E. L. White, Commissioner of Mines, 1907.
- Biennial Report for the Years 1907-1908, T. J. Dalzell, Commissioner of Mines, 1909.
- Biennial Report for the Years 1909-1910, T. J. Dalzell, Commissioner of Mines, 1911.
- Biennial Report for the Years 1911-1912, T. R. Henahen, Commissioner of Mines, 1913.
- Biennial Report for the Years 1913-1914, T. R. Henahen, Commissioner of Mines, 1914.
- Biennial Report for the Years, 1915-1916, Fred Carroll, Commissioner of Mines, 1916.
- Biennial Report for the Years 1917-1918, Fred Carroll, Commissioner of Mines, 1919.
- Annual Report for the Year 1919, Horace F. Lunt, Commissioner of Mines, 1920.
- Annual Report for the Year 1920, Horace F. Lunt, Commissioner of Mines, 1921.
- Annual Report for the Year 1921, Horace F. Lunt, Commissioner of Mines, 1922.
- Annual Report for the Year 1922, Horace F. Lunt, Commissioner of Mines, 1923.
- Annual Report for the Year 1923, John T. Joyce, Commissioner of Mines, 1924.
- Annual Report for the Year 1924, John T. Joyce, Commissioner of Mines, 1925.

- Annual Report for the Year 1925 was fully prepared but, because of lack of funds, was not printed. The manuscript is on file in the office of the State Bureau of Mines.
- Annual Report for the Year 1926, John T. Joyce, Commissioner of Mines, 1927.
- Annual Report for the Year 1927, John T. Joyce, Commissioner of Mines, 1928.
- Annual Report for the Year 1928, John T. Joyce, Commissioner of Mines, 1929.
- Annual Report for the Year 1929, John T. Joyce, Commissioner of Mines, 1930.
- Annual Report for the Year 1930, John T. Joyce, Commissioner of Mines, 1931.
- Annual Report for the Year 1931, John T. Joyce, Commissioner of Mines, 1932.
- Annual Report for the Year 1932, John T. Joyce, Commissioner of Mines, 1933.
- Annual Report for the Year 1933, John T. Joyce, Commissioner of Mines, 1934.
- Annual Report for the Year 1934, John T. Joyce, Commissioner of Mines, 1935.
- Annual Report for the Year 1935, John T. Joyce, Commissioner of Mines, 1936.
- Owing to lack of funds the 1936 Annual Report of the State Bureau of Mines was not published.
- Annual Report for the Year 1937, John T. Joyce, Commissioner of Mines, 1938.
- Owing to lack of funds the 1938 Annual Report of the State Bureau of Mines was not published.
- Annual Report for the Year 1939, Edward P. Arthur, Commissioner of Mines, 1940.
- Owing to lack of funds the 1940 Annual Report of the State Bureau of Mines was not published.
- Annual Report for the Year 1941, Edward P. Arthur, Commissioner of Mines, 1942.
- Annual Report for the Years 1942 and 1943, Fred Jones, Commissioner of Mines, 1944.
- List of Mines for the Year 1944, Fred Jones, Commissioner of Mines, 1945.
- List of Mines for the Year 1945, Fred Jones, Commissioner of Mines, 1946.
- Annual Report for the Year 1946, Fred Jones, Commissioner of Mines, 1947.
- Annual Report for the Year 1947, Fred Jones, Commissioner of Mines, 1948.
- Annual Report for 1948 was not published.
- Annual Report for the Year 1949, Walter E. Scott, Jr., Commissioner of Mines, 1950.

- Annual Report for the Years 1950 and 1951, Walter E. Scott, Jr., Commissioner of Mines, 1952.
- Annual Report for the Year 1952, Walter E. Scott, Jr., Commissioner of Mines, 1953.
- Annual Report for the Year 1953, Walter E. Scott, Jr., Commissioner of Mines, 1954.
- Annual Report for the Year 1954, Walter E. Scott, Jr., Commissioner of Mines, 1955.
- Annual Report for the Year 1955, Walter E. Scott, Jr., Commissioner of Mines, 1956.
- Annual Report for the Year 1956, Walter E. Scott, Jr., Commissioner of Mines, 1957.

FOREWORD

The Bureau of Mines of the State of Colorado was established by an Act of the Tenth General Assembly and approved March 30, 1895. The Bureau of Mines Law established the office of Commissioner of Mines which had been authorized by the Colorado State Constitution in 1876 (Article 16, Section 1), and charged the Commissioner of Mines, among other things, with the supervision of Metal Mine Inspection and the enforcement of laws relative to health and safety in Metal Mines. Subsequently, this Act was broadened to include "any ore mill, sampling works, smelter, metallurgical plant, rock quarry, clay pit, and rock excavations, tunnels, or mine workings of whatever kind or character, except coal mines".

The Thirty-sixth General Assembly in 1947 passed an Act requiring, in addition to the above, that the Commissioner of Mines conduct safety inspection of all oil wells, property and equipment appurtenant immediately and used in connection with producing oil wells and further charged him with the enforcement of laws relating to the health, safety, and welfare of any person employed in such wells, or other property.

From time to time, and by various opinions and decisions, the Colorado Bureau of Mines, under the direction of the Commissioner of Mines, has been authorized and empowered to make safety inspections of all underground metal or mineral mines, open pit or other surface mines, rock and mineral quarries, clay pits and mines, earth and rock dams, water canals, highway excavations, highway gravel pits, all rock excavations, rock tunnels or any mine workings of whatever kind or character (except coal mines), ore mills, mineral grinding plants, highway gravel crushing plants, sampling works, smelters, chemical plants producing a chemical from ore or minerals, metallurgical plants, oil and gas wells and all equipment and machinery used in connection with any of the above and all buildings thereon.

The Commissioner of Mines was authorized to make such rules and regulations as may be necessary for carrying out provisions of safety, and he has further been charged with the enforcement of laws relating to the health, life, safety and welfare of all persons employed in any of the above mentioned categories. The Commissioner, upon receipt of reliable information indicating any condition that might be injurious or dangerous to the health or safety of workmen employed in these places, or any time when he deems it necessary, makes inspections or has inspections made by the inspectors of the Bureau of Mines who report to him on any unsafe condition or unsafe practice. Whenever possible, all accidents are inquired into and a record is kept giving complete information concern-

ing accidents. All fatal accidents are promptly inquired into by an inspector and a complete written report, made to the Commissioner of Mines, becomes a part of the records of the Bureau of Mines.

The Bureau of Mines is required to disseminate such information concerning mining and minerals as may be required by the public, and when he has opportunity and means, the Commissioner of Mines is charged with collecting and preserving mineral specimens and accumulating technical and other data relating to mining, metallurgical processes and geology. He is also required to examine, report on and record the geological formation of important mining districts or mining areas.

The Commissioner of Mines has authority to undertake any research project which would be of assistance to those engaged in mining or which in any way would help to develop the mineral resources of Colorado. He is charged with the responsibility of making investigations regarding prospecting, buying, selling, transporting, treating and reducing ores and minerals, and of recording the progress of the mineral industry providing, of course, that he has means therefore to do so.

The Commissioner of Mines may, from time to time, with the consent of the Governor, compile, publish and distribute bulletins on subjects, districts and counties. When considering a county or district, the report shall give in detail the history of the locality, the geology, the record of mines and mills, the processes of treatment with results, and shall classify and locate mining property and prospects, together with maps of the same provided, of course, that there are appropriations for such work.

The Bureau of Mines has in its custody one of the very finest mineral collections in existence. In addition to the specimens from all over the world, one of the most unusual features of this collection is the fact that it contains specimens of ore from all of the great mines of Colorado. While the collection is visited annually by thousands of tourists, it continues to be of much interest and concern to prospectors, miners, engineers, geologists and persons genuinely interested in Colorado's mineral industry. Foreign engineers and geologists have been most enthusiastic about the Colorado collection. Many new specimens from Colorado mines were added to the collection during 1957.

The first and foremost function of the Colorado Bureau of Mines is Safety Inspection. By inspections and investigations consistent efforts are made to see that safe methods and safe practices are used to protect the health, life, safety and welfare of all persons employed in the mineral and other industries under the jurisdiction of the Bureau.

In addition to their regular duties of inspection and investi-

gation, the four District Inspectors and the two Deputy Inspectors for the Bureau of Mines are qualified First-Aid Instructors. They teach the standard United States Bureau of Mines course and many classes are taught by them each year. Colorado Bureau of Mines inspectors are also qualified to give instruction in the emergency use of the Chemox Breathing apparatus along with instruction as to rescue operations in toxic mine atmosphere. Preliminary ventilation surveys are made by the department and advice and assistance are given to the operator relative to safety of operation.

Advice and information are freely given to prospectors and small operators in order to further the State's Mineral development but no written reports on mines are made and care is taken not to encroach on the proper field of consulting engineers and geologists.

Much of the work of the Bureau of Mines, including this report, would not be possible if it were not for the generous cooperation of other departments and agencies. It is impossible for us to thank individually the persons to whom we are indebted, but we are most grateful to all who have been helpful.

The compiling and preparations of this report have been the work of the entire staff of the Bureau, including the inspectors who furnished much of the data concerning their districts. Each and every member of the staff is to be congratulated and thanked for his most generous cooperation and help.

Every effort has been made to assure accuracy and completeness of the data used in the report but changes, due to removal and altered mining conditions, are constantly taking place which may cause some omissions or mistakes to appear in the publication. It will be most appreciated if any additions, corrections or errors are brought to the attention of the Colorado Bureau of Mines.

The publication of this report is authorized by Chapter 92, Article 32, Section 11, of the Colorado Revised Statutes, 1953.

MINERALS IN 1957

Mineral production in Colorado for the eleventh consecutive year showed an increase over the preceding year. The increase in 1957, although slight, would have been larger had it not been for declining metal prices and a resultant drop in production during the last half of the year. The total value of mineral production in 1957, including uranium production, was \$355,312,126 or an increase of 5% over 1956. Increased petroleum prices and a larger output of silver, copper and zinc, along with increased non-metallic production, accounted for the overall dollar increase. Petroleum products ranked first in value of mineral production in the State with molybdenum second and uranium third. Increases were noted in sand and gravel, beryl, clay, perlite and stone, along with some of the rare minerals. Decreases in production were noted in gold, lead, gypsum, pumice and limestone. Tungsten production in 1957 suffered a severe drop and practically all tungsten properties in the State remained closed during the year following the termination of the General Services Administration purchase program and the resulting lower tungsten prices. Activity in rare metals increased and prospecting for these minerals continued throughout the year.

The production figures given in this report are as accurate as we believe possible to get under existing conditions and at this early date. The value represented is of recoverable mineral content at the market price of the material and includes estimates on production where individual annual reports have not been received. Cost of mining, treatment, freight and other charges are not deducted. The total production figures have been checked with the preliminary releases from the United States Bureau of Mines, and although our information comes from a different source, we believe the final figures will be relatively the same. Crude oil and gas production figures in barrels and cubic feet were provided by the Colorado Oil and Gas Conservation Commission. The dollar value of this production was calculated by this office. Production of some metals and non-metallics is reported to no other agency and consequently part of the production which we show will not appear in any other publication. Most of these production figures are received directly from the operators and as they represent gross production figures they cannot be used as a guide for taxation.

Uranium production in Colorado in 1957 exceeded the production of any previous year. However, for the first time since the purchase program was started by the Atomic Energy Commission, tonnages can be announced. In prior years the Colorado Bureau of Mines based their uranium production figures on the value of the mineral to the State and this in-

cluded an indicated value determined by an approximate amount of money spent in actual production, development, prospecting, treatment and research work, in the State. This was necessary in order that the value of the industry could be reported without divulging classified information which was withheld by the Atomic Energy Commission. Production this year is calculated on the estimated tonnage produced in the State and the amount of U_3O_8 contained at a price of \$10.50 per pound quoted by the Atomic Energy Commission as paid for uranium concentrates. Exploration and experimental expenditures are not included and this will account for the lower production figure.

Five uranium processing mills operated in Colorado all during the year. Four more were under construction and should be in production early in 1958. The new mills are: Union Carbide Nuclear Company at Rifle, Trace Elements Company at Maybell, Gunnison Mining Company at Gunnison, and the Union Carbide Nuclear Plant at Slick Rock. Exploration and development work continued in practically every county in the State with production actually listed from thirteen counties. Many new uranium deposits were opened in present productive areas and core drilling operations continued throughout the State.

Expanding operations continued in 1957 at the Climax Mine operated by the Climax Molybdenum Company with an average crude ore output of 34,000 tons per day and this increased tonnage enabled the company to handle a lower grade of ore. The 100 millionth ton of molybdenum ore was removed from the mine early in 1957 and this represented the largest tonnage ever removed from any underground mine in the State. Negotiations were under way late in the year for the consolidation of American Metal Company, Limited and Climax Molybdenum Company. The new company will be called American Metal Climax, Inc.

Declining base metal prices in 1957 were responsible for several large mining companies suspending operations during the last half of the year. The Resurrection Mining Company at Leadville, Rico Argentine Mining Company at Rico, and the American Smelting and Refining Company Keystone operation at Crested Butte, were three of the large operators that closed because of declining prices. Silver, copper, lead and zinc production increased slightly in 1957 in spite of a severe tonnage loss during the last half of the year. The dollar value of these minerals decreased because of lower metal prices received during the year.

The principal producing districts in the State of gold, silver, copper, lead and zinc were:

Eagle County
San Miguel County

Lake County
 Teller County
 Gunnison County
 Mineral County

The leading producers of gold, silver, copper, lead and zinc were:

GOLD	Golden Cycle Corporation Cripple Creek, Colorado
SILVER	Empire Zinc Division, The New Jersey Zinc Company, Gilman, Colorado
COPPER	Idarado Mining Company Ouray, Colorado
LEAD	Idarado Mining Company Ouray, Colorado
ZINC	Empire Zinc Division, The New Jersey Zinc Company, Gilman, Colorado

The average prices of the above mentioned metals in 1957 were: Gold, \$35.00 per ounce; Silver, \$0.905 per ounce; Copper, \$0.300 per pound; Lead, \$0.144 per pound; Zinc, \$0.115 per pound.

Petroleum production of crude oil in Colorado for 1957 was 54,982,300 barrels or a decrease of 3,515,355 barrels from 1956. The price increase over 1956 is responsible for an overall dollar value gain in 1957 even though actual production was less. The unitization of Rangely Field was responsible for most of the production loss and this was considered temporary and inevitable during the change-over period. Rio Blanco County remained first in petroleum production with 28,469,593 barrels of oil in 1957, Washington County climbed to second place with a production of 7,027,214 barrels, and Morgan County remained in third place with a production of 6,838,190 barrels of crude oil. Rangely Weber Field was the top producer with 25,610,792 barrels and Morgan County Adena Field was second with 5,457,125 barrels.

Colorado's future in the production of petroleum products is very encouraging. Certain parts of the State are located in very favorable geological areas. These are portions of the Northwest, Northeast, Southwest and Southeast Colorado. Of these areas, Northwest and Northeast Colorado are now producing a major part of the State's oil and gas with stepped-up drilling and exploration in Southwest Colorado. An average amount of drilling has occurred in Southeast Colorado during 1957 with several new discoveries being reported. Thirty new oil pools have been added to the State's reserves during the year and in excess of 800 new wells were drilled. Present indications are that Southwest Colorado will become a major producing area for oil and gas in the State. With the development

of new retort processes by the government, as well as private industry, Colorado's oil shale deposits offer a tremendous additional reserve in petroleum products.

PRODUCTION OF METALS, NON-METALLICS, PETROLEUM, 1957

	Metals
Molybdenum	\$ 50,109,464
Uranium	40,425,000
Vanadium	12,495,000
Zinc	11,851,666
Lead	6,145,195
Gold	3,093,475
Copper	3,605,000
Tungsten	2,598,325
Silver	2,645,050
Miscellaneous (Metals which cannot be separated for production value)	1,227,000
Pyrite	439,406
Beryllium	123,000
Tin	30,795
TOTAL	\$134,788,376
	Non-Metallics
Cement	\$ 14,927,353
Sand and Gravel	13,325,400
Fluorspar	3,424,600
Limestone, Dolomite, etc.	2,124,763
Building and other stones	1,697,104
Clays	1,386,738
Perlite	755,000
Feldspar, Mica, etc.	365,533
Miscellaneous (Pumice, Gem Stones, etc.)	119,443
TOTAL	\$ 38,125,934
	Petroleum
Crude Oil	\$171,237,613
Gas (All classes, well head value)	11,160,203
TOTAL	\$182,397,816
	Recapitulation
Metals	\$134,788,376
Non-Metallics	38,125,934
Oil and Gas	182,397,816
TOTAL MINERAL PRODUCTION	\$355,312,126

COUNTY ACTIVITY AND PRODUCTION

ADAMS (1)

Oil production, by barrels, in Adams County was slightly less although the monetary value showed an increase, due to a higher price per barrel in 1957. Seventeen fields were in operation during the year. Sand and gravel production increased and some gold and silver was recovered from these operations.

ARCHULETA (4)

The Oriental Oil Company, operators of Gramps Field in Archuleta County, were the principal oil producers in the County. Their de-watering plant operated throughout the year and their oil was pumped to Chama, New Mexico, for rail transportation to their Denver refinery. Other operators were active in the area and some new wells were completed.

BENT (2)

Oil production in Bent County for 1957 was 5,784 barrels, an increase of 1,000 barrels over 1956. Exploration activity continued which indicates that this county will continue to expand its petroleum production. Wildcat activity was on the increase with some reported success.

BOULDER (1)

The expiration of the government's tungsten ore-buying program on November 1, 1956 resulted in an almost complete shutdown of all tungsten properties in Boulder County during 1957. Some tungsten prospecting and development work was done at various properties and some ore was treated at the Cold Spring Tungsten Mill at Nederland. Fluorspar production continued steady in 1957 with production from the Burlington Mine, operated by the General Chemical Division of the Allied Chemical & Dye Corporation, and from Harry M. Williamson's property at Jamestown. Fluorspar ore from the Emmett property was milled by Ozark-Mahoning at the Wano Mill and the Burlington ore was processed at the Valmont plant, operated by Allied Chemical. Gold, silver, and uranium prospecting was evident throughout the year by former tungsten operators. The stone quarries in the north end of the county continued to produce during the year. Late in 1957 a shipment of thorium ore was treated at the Wah Chang Corporation's Marion Mill and the results were encouraging.

CHAFFEE (3)

Prospecting and developing operations in Chaffee County declined somewhat in 1957. However, work continued on a wide variety of minerals. The Monarch Lime Quarry, operated by the Colorado Fuel and Iron Corporation, had a steady produc-

tion all during the year from their quarry located on the east side of Monarch Pass. Feldspar from the M & S and the Homestake Quarries was shipped to the Western Feldspar Mill near Salida. The Natural Power Company of America continued work on the copper deposit at the Wapaca Mine and the Minerals Production Company carried on development work all year at their Lilly property located on Monarch Pass. The Tom Collins Mine, operated by the Free Gold Mining Company, continued development work during the year. Granite blocks were produced at the Crystal Quarry by the Salida Granite Company, and development work was done at the Slim Chance Mine.

CLEAR CREEK (1)

Mining activity in Clear Creek County remained steady during the year. However, declining base metal prices had their effect on operating properties. The Bald Eagle Mine, operated by the Bald Eagle Mining Company, had a record production in the first part of the year for gold, silver, copper, and lead but became idle in the latter part of 1957. Rehabilitation work was in progress all year on the Big Five or Central Tunnel at Idaho Springs under the direction of the Contract Engineering Company. The tunnel has been cleaned and re-timbered for a distance of 8,000 feet and work was started on a 1,700-foot churn drill hole to be used for ventilation purposes. The Dixie Mine and Mill were sold by LeRoy Giles & Company to Vicon, Inc. during the year. However, operation of the property was continuous. The Silver Spruce Mill was converted to a rare earth mill by the Michigan Chemical Company and some yttrium concentrate was produced. Lisbon Valley Uranium Company operated properties in Virginia Canyon and at Silver Plume during the early part of 1957, and many other gold, silver, lead, and zinc properties were being developed. Michigan Sewer Constructors worked all year on the south Vasquez and Jones Pass Water Diversion Tunnels for the Denver Water Board, and completion is scheduled for 1958. The Gold Coin Mining Company was active in cleaning up several of their properties and they plan to open up the Bellvue-Hudson Mine in 1958. The Golden Anchor Mine in Alice was worked during the year and a vein of gold has been opened.

CONEJOS (3)

Some production was reported from the King Turquoise Mine where turquoise is mined and used for stone setting in costume and Indian jewelry.

COSTILLA (3)

The Mesita Hill Plant, operated by the Colorado Aggregate Company, treated volcanic scoria in excess of 250 tons per month for the production of cinder blocks.

CUSTER (2)

Custer County mining activities consisted of perlite production from the Rosita Quarry, owned by the Great Lakes Carbon Company and operated by the Barnhisal Construction Company, and thorium production from the Star Group, operated by the Cotter Corporation. The Reynolds Mineral Corporation operated their Bassick plant near Querida, Colorado and recovered gold and silver from old dumps in the area. The Rosita Quarry was closed down late in 1957. Considerable exploration activity was evident in Wet Mountain Valley on both copper and uranium.

DELTA (4)

The Atlas Mining & Manufacturing Company operated the Doty Sulphur Pit for a short time during the summer months. The product is treated at their plant in Delta and is used for fertilizer. Production of sand and gravel was steady during the year from the Delta Sand & Gravel Company's pits and the Hamilton pits near Cedaredge. Some wildcat oil drilling continued throughout the year, and work on the Beaver Dam above Paonia was steady.

DENVER (1)

Although there are no producing mineral properties in Denver County, three processing plants are within the Denver city limits. The Globe Plant, operated by the American Smelting and Refining Company, receives its raw product from other smelters and produces cadmium and other by-products. The Denver Works of the General Chemical Division of the Allied Chemical & Dye Corporation manufactures sulphuric acid from pyrites produced elsewhere in the State. The Consolidated Feldspar Plant of the International Minerals and Chemical Corporation receives raw feldspar from mines in the State and produces materials for wall board and plaster. All three plants have operated continuously during the year.

DOLORES (4)

Declining base metal prices had an effect on the Rico Argentine Company with properties in Rico, Colorado. The Mountain Springs, Blaine, and St. Louis Tunnel workings, producers of lead, zinc and silver, were closed the latter part of the year. Production for the first part of the year was normal. Rico Argentine's RAMCO Acid Plant continued to operate throughout the year on pyrites from the mill tailings dump and the Mountain Springs property. Sulphuric acid was manufactured for use in the several uranium mills in the area. An estimated 5,000 tons of pyrites were processed each month. Some uranium prospecting continued in the county. However, to date no production has been recorded. Oil drilling activity was reported in the Dunton area and several wells were completed west of Dove Creek and in Glade Park.

DOUGLAS (2)

Clay and limestone were produced in Douglas County in 1957 by three operators at four different properties. John Fox produced limestone at the Helmer Quarry and clay at the Helmer Clay Pit, both located twelve miles southwest of Littleton. The Robinson Brick & Tile Company averaged 2,000 tons per month of fire clay from the Hogback No. 2 located near Waterton. Stroud Whisenhunt produced clay from the Stevens Ranch pit ten miles southeast of Castle Rock. Some feldspar development and production were recorded and several uranium claims were worked in the county.

EAGLE (3)

The Eagle Mine, operated by the Empire Zinc Division of the New Jersey Zinc Company, continued to operate on a normal basis and was one of the few base metal producers that remained in operation throughout the year. Operations were conducted through the Newhouse Tunnel and ore was processed in the company's underground mill. Development work continued on a reduced basis and because of declining metal prices operations were not expanded. Sigwart and Randall continued development of the lead-zinc ore at the Morning Mine located ten miles south of Redcliff and E. H. Boone produced pumicite from the Roaring Fork Quarry.

EL PASO (2)

Both the Lennox Breed Quarry, operated by the Colorado Materials Company, and the Castle Quarry, operated by the Castle Concrete Company, had a steady production of concrete aggregate during the year. Much of this material was furnished for construction at the Air Force Academy. Late in the year Vetter and Sons started producing limestone from the Rampart Range Mine. Trail Mines, Inc. produced and shipped thorium ore from their property near the Corley Mountain Highway. The search for uranium by many prospectors continued during the year.

FREMONT (2)

Fremont County with twenty separate mining and milling operations listed continues to be Colorado's most diversified producer of minerals. Limestone, copper, silver, uranium, rare earth, thorium, zinc, gypsum, ganister, dolomite, travertine, terrazzo chips, fire clay, silica rock, beryllium, feldspar, petroleum and mica production was listed for the county in 1957. The Juniper Oil & Mining Company's Snooper-Dickson property was the largest producer of uranium ore. The largest operation in the county was the Portland Quarry operated by the Ideal Cement Company. During the year Cotter Corporation signed a contract with the Atomic Energy Commission

which will enable them to construct a thorium and uranium mill near Canon City. The Bryan Drilling Company and the K. D. Drilling Company conducted deep tests at the Florence oil field during the year. However, the results have not been announced.

GARFIELD (3)

With the completion and dedication of the Union Oil Company's oil shale plant and mine located on Parachute Creek and actual production of petroleum products during the year, Garfield County has a prominent place in future mineral production in Colorado. Fuel oil produced at the new plant was used successfully at the Rifle Uranium Reduction Plant which is owned by the Union Carbide Nuclear Company. The new 1,000-ton uranium plant, constructed east of Rifle by the Catalytic Construction Company for the U.C.N.C., is scheduled to go into production early in 1958 and this plant will replace the old 300-ton plant. The Government's oil shale plant and mine located seven miles west of Rifle was maintained on a standby basis during the year and it is anticipated that this plant will continue operations in the future. The Ideal Lava Products Company produced volcanic cinders and Frank Norberg operated the Glenwood Springs Lime Quarry all year. Some oil well drilling was done in the county and several gas producers were brought in.

GILPIN (1)

Scattered and varied mining activities typified Gilpin County's operations during the year. Thirty-three separate properties were inspected during 1957 and these covered rare earth, uranium, gold, silver, lead, molybdenum, and zinc prospecting and development operations. Glory Hole, Inc. made additions to their mill and did further development work at the La Crosse Tunnel. Improvements both on the surface and underground at the Meeker-Success were completed. The Treasure Key Tunnel was advanced further toward the Lake Gulch area. DeLinde Enterprises were active on the Rara Avis Mine, and several tourist mines were open all year. Colorado Constructors completed the slabbing operation on the Moffat Water Tunnel and preparations were made to start concreting work before the end of the year. Nye Mathews Mining, Inc. opened up their short tunnel and started a new 1,500-foot development crosscut into their molybdenum property in the Apex area.

GRAND (3)

Early in 1957 the Newmont Exploration Company completed development work on the Beaver Claim of the Undecided Uranium Group and work was suspended during the last half of the year. Tunnel work on the north entry of the Vasquez diversion tunnel continued until late in December when work was stopped pending the connection from the south

entry. The Mountain States Construction Company completed foundation work on the Williams Fork Dam and preparations are being made to pour concrete for the raising of the dam an additional 110 feet. Uranium prospecting and exploratory work continued in the county.

GUNNISON (3 & 4)

Declining metal prices had an effect on Gunnison County when the Keystone Mine and Mill at Crested Butte, operated by American Smelting & Refining Company, suspended production July 1st of this year. A small maintenance crew has been kept on the property, and work continued on the Keystone shaft below the main Keystone level. Redwell Basin Mining Ventures ceased operations on the Daisy Mine and their contemplated mill was not started. Activity in the county, however, was on the increase with operations being conducted at the Baxter Mine by Downing and Hodgson, at the Clara L and Star Mine on Italian Mountain, and the Gold Lynx, Raymond, and Little Darling properties in the Ohio City area. Newmar Mining Corporation activities at the Micawber property and others in the Crested Butte area continued during the year. Uranium activity was high in the county during the year with new discoveries reported in the Marshall Pass area. Development operations were recorded at the Little Indian property. Production from the Gunnison Mining Company's new mill in Gunnison will start early in 1958.

HINSDALE (4)

Prospecting in Hinsdale County was progressive during the year in both base metals and uranium. However, actual operations were confined to three properties. Development work was conducted by H. C. Knapp on the Pride of America Mine, Intermountain Engineering Company continued development of the Gold Quartz Mine, and Jack C. Costanza and Associates performed development work on the Dalco property. Highway 149 between Iola and Lake City is being improved and will offer better access to this gold mining district.

HUERFANO (2)

Uranium prospecting continued in the county all during the year and some uranium claims were located and filed. There was no production reported from Huerfano County.

JACKSON (3)

The Ozark-Mahoning Company conducted a steady operation at their Whale Pit and Two Hundred Level fluorspar mines in Jackson County and the ore was treated in the Ozark-Mahoning mill north of Cowdrey. Production remained about the same as in 1956. A reported platinum discovery was made in the Routt National Forest, twenty-eight miles southeast of Walden, and the property is being developed by Thomas A.

Roller and Associates. Oil well activity in the county remained steady with some new producers being brought in. The Battleship, Canadian River and north and south McCallum fields were steady producers during 1957.

JEFFERSON (1)

Sand and gravel continued to be Jefferson County's most valuable mineral product in dollar value, with clay, uranium, stone, copper, and feldspar following in order. Some beryllium and rare earth were also produced during the year, as well as some gold as a by-product from gravel plants. Clay was produced from the pits of the Denver Fire Clay Company, M. E. Church, Denver Terra Cotta Company, Denver Brick & Pipe Company, George W. Parfet Estate, Lakewood Brick & Tile Company, Robinson Brick & Tile Company, Rubey Clay Company, George W. Lindsay's property, and the State of Colorado. The Brannan Sand & Gravel Company and the Rio Grande Gravel Company were the principal gravel producers. The Denver-Golden Oil & Uranium Company was the principal producer of uranium. Feldspar was produced in the South Platte River Canyon, and copper was produced from the Malachite Mine in Genesee Gulch. Plans were made late in the year to open the Table Mountain Stone Quarry and to mine several thousand tons of filter rock.

KIOWA (2)

Oil production from Kiowa County was listed at 6,708 barrels for 1957 which indicates the expanded activity in this area. Drilling continued in the McClave Field area and in the Nee Sopah reservoir district.

LAKE (3)

Base metal production in Lake County for the first part of the year surpassed production for the similar period in 1956. However, declining metal prices caused practically all lead-silver-zinc mines in the county to close during the latter part of the year. Announcement was made in August that the Resurrection properties would close and these included the Ibez, Irene, Eclipse, Julia Fiske, Helena, Yak Tunnel, and the Resurrection Mill. Climax Molybdenum Company increased production during 1957 and maintained an average daily tonnage of 34,000 tons. Climax started construction of a new by-products plant half of which was completed in December and the other half will be completed in February of 1958. On February 4th of this year Climax Molybdenum Company mined their 100,000,000th ton of ore and dedicated a new unit to the mill. Boyle Brothers Drilling Company continued rehabilitation work on the Busk-Ivanhoe Tunnel and this work consisted of picking up caves and re-timbering. The Busk-Ivanhoe Tunnel is used as a diversion water tunnel by the Highline

Canal Company. The Arkansas Valley Plant of the American Smelting & Refining Company operated all year on ores received from mines in Colorado and adjoining states.

LA PLATA (4)

Oil and gas drilling activity in La Plata County increased over 1956 and many new gas wells were completed. Pipe line connections were completed to metropolitan areas which provided a ready market for petroleum products from the area. Vanadium Corporation of America's Durango Plant operated continuously during the year on vanadium and uranium ores from Colorado, as well as ores from Utah, Arizona, and New Mexico. Plant capacity remained steady during the year. Development work was done at the Brawner Tunnel, Farmer Boy, and Good Hope No. 2. These properties are located in La Plata Canyon and on Lightner Creek. The Bessie G produced silver-gold ore and milled it in their new mill in La Plata Canyon.

LARIMER (1)

Larimer County continued to be one of the largest producers of limestone in the State. Operations at the Boettcher Quarry continued with record tonnage production all year. Gypsum was mined at the Loveland Quarry operated by the United States Gypsum Company and some beryllium activity was reported in the county. The Sterling Sand & Gravel Company operated their pits on Taft Hill Road. Numerous stone quarries were active for the most part of the year. Uranium prospecting and development work continued throughout 1957; however, very little production was reported.

LAS ANIMAS (2)

The Santa Fe Clay Mine operated by the Scott-Ruiz Coal Company and owned by the Standard Fire Brick Company was the only mineral producer in the county during 1957. Petroleum activity continued during the year and several wildcat wells were drilled.

LOGAN (1)

Petroleum production in Logan County this year was recorded at 6,517,803 barrels compared to 3,000,000 barrels in 1956, although the number of producing fields increased to seventy-one. Exploration activity was lighter this year than in the previous year and less wildcat activity was noted. This would indicate that the area has been commercially developed and that production has leveled off to a steady yield.

MESA (4)

Mesa County again was second in the production of uranium in the State with production coming from seventy active mines during the year. Climax Uranium Company operated

their plant at Grand Junction on capacity tonnage all year from their many mines in the county and from independent operators over the State. Sinking operations were completed and production started from their G-3 Mine on Outlaw Mesa. Increased activity on Beaver Mesa by Beaver Mesa Uranium, Inc., as well as other operators, increased production from this area during the year. Union Carbide Nuclear Company's operations were steady, and the Atomic Energy Commission plant at Grand Junction maintained steady employment during the year. Several wildcat wells were drilled on Grand Mesa during 1957 and a producer was reported to have been completed sixteen miles northwest of Grand Junction. Work on the Vega Dam above Colbran by the C. F. Lytle Construction Company was steady during the year with completion estimated during 1958.

MINERAL (3)

The Monon Mining & Leasing Company continued development work on their Monon property in 1957 and production of lead, silver, and zinc was steady from the Amethyst and Commodore Mines operated by the Emperius Mining Company. The Emperius Mill had a continuous and steady production during the year on ores from their own properties. Other production of gold, silver, lead, and zinc was reported from the Outlet Mining Company and the Sublet Mining Company, operators of the Outlet Tunnel and the Holy Moses Tunnel.

MOFFAT (3)

Construction was completed on the Trace Elements' 300-ton uranium mill located seven miles northeast of Maybell and test runs were in progress by the end of the year. Ore for the mill will be supplied from the Marge Pit, also operated by Trace Elements, a subsidiary of Union Carbide Nuclear Company. The Marge Pit deposit is mined by the strip mining method and is reported to be one of the largest deposits operating in the State. The Little Star No. 1, operated by the Jacobs Chair Mining Company, was active all year, as well as other companies which were active in the prospecting and developing of uranium ore. Petroleum production at Hiawatha Dome, Powder Wash, Isles Dome, Maudlin Gulch, Thornburg Field, and Elk Springs was steady and many new wells were completed.

MONTEZUMA (4)

Development activity and some production continued in the East Mancos River area in the vicinity of the Red Arrow Mine during 1957. The First National Oil & Minerals Company operated the Red Arrow group, Gold Dollar Associates operated the Gold Dollar, and Lyen and Miller operated the Silver Pick Mine. These properties have produced gold, silver, lead, and copper ores. Uranium was produced in the Cross Canyon

area at the Blue Eagle and the Yellow Lizard properties. Expanded exploration in both oil and gas well drilling west of Cortez continued all during the year.

MONTROSE (4)

Montrose County continued to be the State's leading uranium producer with over 180 active properties reported and covering, in general, the entire west end of the county. Both the Uravan Plant, operated by the Union Carbide Nuclear Company, and the Naturita Plant, operated by Vanadium Corporation of America, maintained capacity production during the year. The up-grading plant at Slick Rock, operated by Union Carbide Nuclear Company, was completed late in 1957 and will, no doubt, increase milling capacity in the county. On July 20th a large area of withdrawn land was released in Montrose and San Miguel Counties, which resulted in many more claims being located during the year. Immediate prospecting and development work was begun on this property and this, with new discoveries in the Monogram, Bull Canyon, Wild Steer Canyon, Long Park and Uravan areas, will cause Montrose County to continue to be a large uranium producer. Construction of access roads in the county has materially aided in uranium exploration.

MORGAN (1)

Morgan County remained third in petroleum production in the State in 1957 and the dollar value of the product increased although a drop of 533,949 barrels in production was reported. Thirty-three fields were actively producing. However, some drop was indicated in the amount of wildcat drilling. Adena Field remained the State's second highest producer with a production of 5,457,125 barrels of crude oil.

OURAY (4)

Disagreement on labor negotiations between the company and the union caused the closing of the famous old Camp Bird Mine in July of 1957 after a strike had been called in May. Camp Bird Limited, operators of the mine, resumed control of the property late in 1956 and at present have a small maintenance crew at work. The Idarado Mining Company has continued operations all year through their Treasury Tunnel located at Red Mountain. All ore mined in the Treasury Tunnel in 1957 was transported underground to the company mill in Telluride. Although considerable development work was done at various properties during the year, declining metal prices influenced production and few of the operations were active all year. Renewed activity in the Engineer Mountain area promises additional operations for this district in 1958.

PARK (2)

Eight mines, one mill, and one quarry were active in Park County during 1957 and some of these operated all year in

spite of declining metal prices. The Boomer Mine, operated by the Mountain Dale Mining Company, shipped a considerable amount of beryllium ore from what constituted the largest beryl operation in the State. The Big Four conducted exploration activities for uranium. The Happy Thought operated a beryl prospect while the Buckskin Joe, Champagne, Hill Top, and Red Cross Mines produced silver, gold, and lead and the American Mill produced silver-lead concentrates. The Grant entry of the Harold D. Roberts Tunnel was extended over 12,000 feet during the year by Blue River Constructors and this project was responsible for the employment of 112 men.

PITKIN (3)

Rehabilitation work was done on the west portal of the Busk-Ivanhoe Tunnel by Boyle Brothers during the summer months. However, this work will be continued from the east portal. Some work was done on the Chance Durant Tunnel with the idea of converting this mine into a tourist attraction. Otherwise, mining activity in Pitkin County was slow during the year.

PUEBLO (2)

Mineral activity in Pueblo County was substantially the same as in 1956. The International Minerals & Chemical Company's mica grinding plant operated with steady production all year. The Standard Fire Brick Company operated the Chamblin and Rock Creek Clay Mines. The Freeman Brick Company produced some tonnage from the clay property in the Rock Creek area. Other clay operations were the Stone City Nos. 1 and 2 and the Meadow Clay Mine operated by the Pueblo Clay Products Company. Sand and gravel accounted for considerable production. There was no reported oil drilling activity in the county. Cliff & Creek Uranium Company of Colorado Springs did considerable drilling and other prospecting on their uranium property in the Lytle district.

RIO BLANCO (3)

A great step in the conservation and ultimate higher production of petroleum products from Rangely Field was accomplished when the field was unitized on October 1, 1957 with The California Company being designated as operator of the field. This operational procedure, it is estimated, will result in the recovery of 400,000,000 additional barrels of oil from the area. Phillips Petroleum Company and the Shell Oil Company reported successful drilling in the Meeker area, and general petroleum production in the county was on the increase. The McAlester Fuel Company did development work on their Burrell No. 1 uranium deposit located twenty-seven miles northeast of Meeker, and the Midnight Mine was operated by Ray Hasselbush. Other uranium prospecting and development activities were evident in the county.

RIO GRANDE (3)

Development work was done on the Chandler Tunnel by the General Minerals Corporation for future production of gold, silver, copper, and zinc. This property is located twenty-seven miles southwest of Del Norte. The Mammoth Mine, operated by Robert W. Hume, also performed development work during the year. This property is located thirty-seven miles southeast of Monte Vista.

ROUTT (3)

The McCoy Cinder Pit, operated by the McCoy Aggregate Company, produced volcanic scoria during the year with production up to 5,000 tons per month throughout the summer. The Copper King Mine, operated by McFarland and Hullinger, was closed late in March of 1957, with no record of production from this copper-silver mine. Considerable uranium prospecting was evident in the county, and petroleum exploration was moderate. The Texas Company's Tow Creek Field produced all year, and new wells were drilled by the Cabeen Oil Company and the Tennessee Transmission Company.

SAGUACHE (3 & 4)

During 1957 sixteen mines, one mill, and a quarry were reported as active in Saguache County, and one smelter was under construction. This was a gain over 1956. However, later in the year several of the properties were forced to close because of declining metal prices. Superior Mines Corporation operated the Antoro, Paragon, Rawley Nos. 3 and 12 Mines all year and will complete their mill in 1958. Tri-Em Corporation operated the Cliff and Jupiter Mines and the Tri-Em Mill for part of the year. Other properties in operation in the Bonanza area were the Jenny, Warwick, Wannamaker, Rawley No. 2, and the Wheel of Fortune. Uranium activity continued all year in the Marshall Pass area by the D & J Uranium Corporation and the Pinnacle Exploration Company. The Los Ochos property, operated by the Gunnison Mining Company and located at the foot of Chochetopa Pass, continued developing and stockpiling ore which will be processed in their new mill, located in Gunnison County and scheduled to be in operation early in 1958. Some turquoise production was recorded from the Villa Grove Turquoise Mine located six miles northwest of Villa Grove.

SAN JUAN (4)

With the merger of the Marcy Exploration and Mining Company and the Shenandoah-Dives Mining Company into the Marcy-Shenandoah Corporation and the exploratory work being done by the U. S. Manganese Corporation, the future of mining in San Juan County looks bright. Marcy-Shenandoah Corporation is developing ore reserves at the Gary Owen Mine

and is reconditioning the Shenandoah Mill for custom ores as well as their own ores. Boyle Brothers have completed a drilling program for U. S. Manganese Corporation in the Animas Forks area to determine the extent of rhodonite deposits in the area. A trial lot of rhodonite was mined from the Terry Tunnel and was ground to 60 mesh and shipped to West Orange, New Jersey for further treatment. Leasing activity has been on the increase in the county and several older properties which have been consolidated are actively engaged in development work. There has been some production as well. The Pride of the West Mine and Mill were active during the year.

SAN MIGUEL (4)

San Miguel County led the State's production in copper and lead and was third in uranium production. With the completion of the Slick Rock plant, owned by Union Carbide Nuclear Company, and the continued development of new uranium deposits in the county, production should hold steady for several years. On July 20th several thousand acres of withdrawn land was opened for location in the county and this new area should produce additional mines with increased uranium production. New deposits were discovered and opened in the Slick Rock area, the Gypsum Valley area, and the Bull Canyon area. Idarado Mining Company's operations at Pandora were steady during the year and production was held high in spite of declining metal prices. Development work continued and much new equipment was installed. Some bog iron was shipped from the Iron Springs Placer operation at Ophir, and development plans were completed on a phosphate rock deposit in the Klondike area by the Greasy Sack Mining & Milling Corporation.

SUMMIT (3)

During the year ten mining operations were conducted in Summit County. However, by the end of the year most properties had suspended operations due to the fall in metal prices. The Chataqua, Shoe Basin, and Wellington Mines operated throughout the year, and the Teller Basin Mill remained active. The Burke-Martin Mill, as well as the Silver Wing and the Meteor Tunnel, operated during the first part of the year. The Blue Flag, Minnie, and New York Mines closed near mid-year. Development work was done late in the year on the Blue Star fluorspar deposit. Tunneling operations on the Harold D. Roberts Tunnel continued throughout the year, and the Blue River Constructors succeeded in bottoming the Montezuma Shaft during 1957. The Dillon entry was advanced 10,000 feet and tunneling from the bottom of the Montezuma Shaft in both directions will start early in 1958. Boyle Brothers Drilling Company started work on the Climax Molybdenum Company's Ten Mile Tunnel which will be used to reclaim tailings water.

TELLER (2)

Mining operations in Teller County remained steady during 1957 and production was about the same as in 1956. The Golden Cycle Corporation's mill received ores from the district all during the year from both company leased and independently operated mines. Operating and producing mines in the area were the Ajax, Cresson, Deadwood, El Paso, Grace Greenwood, International, Strong, Gold King, and the Vindicator. The Mollie Kathleen was operated as a tourist mine and the International Mine carried out development work. The Black Cloud Quarry, operated by the Carl Quist Service, produced feldspar. Peat was produced from the Alpen Meadow Bog, and the Pikes Peak Quarry produced monumental stone. Some uranium exploration was conducted in the High Park area by the Cotter Corporation.

WASHINGTON (1)

Petroleum activity in Washington County increased during 1957 and forty-seven fields were reported as producing. Actual production was reported as 7,027,214 barrels of crude oil which placed the county second to Rio Blanco County in production for the State. Exploration was active all year and many new wells were completed. Wildcat activity continued in the northeastern part of the county.

PRODUCTION BY COUNTIES

1957

ADAMS COUNTY

* BRIGHTON

Area 1251 square miles

2 plants, oil wells—52 men

Gold\$ 9,308

Silver 100

Total.....\$ 9,408

Sand and Gravel 2,000,000

Petroleum 3,121,890

Gas 141,900

Total.....\$ 3,263,790

TOTAL PRODUCTION FOR COUNTY.....\$ 5,273,198

ARAPAHOE COUNTY

* LITTLETON

Area 820 square miles

Oil wells—22 men

Sand and gravel\$ 1,000,000

TOTAL PRODUCTION FOR COUNTY.....\$ 1,000,000

ARCHULETA COUNTY

* PAGOSA SPRINGS

Area 1364 square miles

Oil wells—50 men

Sand and gravel\$ 500,000

Petroleum\$ 428,795

TOTAL PRODUCTION FOR COUNTY.....\$ 928,795

BENT COUNTY

* LAS ANIMAS

Area 1543 square miles

Oil wells—20 men

Sand and gravel\$ 50,000

Petroleum\$ 1,807

TOTAL PRODUCTION FOR COUNTY.....\$ 51,807

BOULDER COUNTY

* BOULDER

Area 758 square miles

21 mines, 7 plants, 5 quarries, oil wells—285 men

Gold	\$ 4,000
Silver	8,000
Copper	1,000
Lead	8,000
Tungsten	20,000
Uranium	

Total.....	\$ 41,000
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Clay	6,500
Fluorspar	2,070,000
Peat	24,000
Building stone	810,000
Crushed stone	600,000
Sand and gravel	299,500
Feldspar	980
Mica	1,200

Total.....	\$ 3,812,180
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Petroleum	\$ 10,228
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TOTAL PRODUCTION FOR COUNTY.....	\$ 3,863,408
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CHAFFEE COUNTY

* SALIDA

Area 1040 square miles

8 mines, 4 quarries, 2 plants—120 men

Silver	\$ 3,000
Lead	16,000

Total.....	\$ 19,000
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Limestone	808,100
Feldspar	203,300
Monumental stone	28,000
Crushed stone	25,000
Sand and gravel	40,000

Total.....	\$ 1,104,400
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TOTAL PRODUCTION FOR COUNTY.....	\$ 1,123,400
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CLEAR CREEK COUNTY

* GEORGETOWN

Area 395 square miles

36 mines, 8 plants, 2 placers, 1 quarry—291 men

Gold	\$ 116,000
Silver	49,900
Copper	27,000
Lead	89,100
Zinc	50,000

Total.....\$ 332,000

Beryl	1,000
Feldspar	1,280
Sand and gravel	120,000

Total.....\$ 122,280

TOTAL PRODUCTION FOR COUNTY.....\$ 454,280

COSTILLA COUNTY

* SAN LUIS

Area 1220 square miles

1 plant—3 men

Volcanic cinders	\$ 23,670
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TOTAL PRODUCTION FOR COUNTY.....\$ 23,670

CUSTER COUNTY

* WESTCLIFFE

Area 738 square miles

1 mine, 1 quarry, 1 plant—23 men

Gold	\$ 2,500
Silver	1,200
Copper	4,000
Lead	1,300
Thorium	3,829

Total.....\$ 12,829

Perlite	755,000
Sand and gravel	10,000

Total.....\$ 765,000

TOTAL PRODUCTION FOR COUNTY.....\$ 777,829

DOLORES COUNTY

* DOVE CREEK

Area 1029 square miles

2 mines, 2 plants—100 men

Gold	\$ 6,500
Silver	10,000
Copper	8,960
Lead	50,000
Zinc	61,000
Pyrite	380,365
Uranium	
Vanadium	

TOTAL PRODUCTION FOR COUNTY.....\$ 516,825
DOUGLAS COUNTY

* CASTLE ROCK

Area 844 square miles

4 quarries—18 men

Clay	\$ 167,950
Limestone	5,500
Silica rock	3,000

TOTAL PRODUCTION FOR COUNTY.....\$ 176,450
EAGLE COUNTY

* Eagle

Area 1686 square miles

2 mines, 1 plant, 2 quarries—574 men

Gold	\$ 107,170
Silver	835,530
Copper	734,284
Lead	1,337,395
Zinc	6,157,866

Total.....\$ 9,175,245

Volcanic cinders	8,000
Stone	4,103

Total.....\$ 12,103

TOTAL PRODUCTION FOR COUNTY.....\$ 9,187,348
EL PASO COUNTY

* COLORADO SPRINGS

Area 2159 square miles

2 mines, 2 quarries—56 men

Sand and gravel	\$ 2,000,000
Silica rock	26,000

TOTAL PRODUCTION FOR COUNTY.....\$ 2,026,000

FREMONT COUNTY

* CANON CITY

Area 1562 square miles

7 mines, 2 plants, 11 quarries, oil wells—224 men

Uranium	
Vanadium	
Total.....	
Clay	\$ 39,000
Cement and plaster	10,880,962
Dolomite	165,234
Feldspar	15,800
Gypsum	59,000
Limestone	635,670
Mica	2,000
Terrazzo chips	23,176
Travertine	28,000
Sand and gravel	500,000
Total.....	\$12,348,892
Petroleum	\$ 77,862
TOTAL PRODUCTION FOR COUNTY.....	\$12,426,754

GARFIELD COUNTY

* GLENWOOD SPRINGS

Area 3000 square miles

1 mine, 4 plants, 3 quarries—446 men

Limestone	\$ 34,400
Sand and gravel	200,000
Total.....	\$ 234,400
Gas	\$ 82,300
TOTAL PRODUCTION FOR COUNTY.....	\$ 316,700

GILPIN COUNTY

* CENTRAL CITY

Area 149 square miles

26 mines, 4 mills, 3 placers—219 men

Gold	\$ 6,000
Silver	5,400
Copper	1,500
Lead	3,000
Zinc	4,000
Tungsten	325
Uranium	
Total.....	\$ 20,225
Peat	8,000
Rare earth	2,365
Sand and gravel	152,900
Total.....	\$ 163,265
TOTAL PRODUCTION FOR COUNTY.....	\$ 183,490

GRAND COUNTY

* HOT SULPHUR SPRINGS

Area 1869 square miles

1 mine, projects—294 men

Uranium	
Sand and gravel	\$ 90,000
TOTAL PRODUCTION FOR COUNTY.....	\$ 90,000

GUNNISON COUNTY

* GUNNISON

Area 3243 square miles

9 mines, 3 mills, 1 quarry—462 men

Gold	\$ 14,000
Silver	225,000
Copper	320,000
Lead	477,300
Zinc	157,500
Uranium	
Vanadium	
Columbium-Tantalum	900
Total.....	\$ 1,194,700
Mica and Feldspar	19,854
Sand and gravel	70,000
Total.....	\$ 89,854
TOTAL PRODUCTION FOR COUNTY.....	\$ 1,284,554

HINSDALE COUNTY

* LAKE CITY

Area 1062 square miles

3 mines—14 men

Gold	\$ 100
Silver	220
Lead	250
Zinc	300
TOTAL PRODUCTION FOR COUNTY.....	\$ 870

JACKSON COUNTY

* WALDEN

Area 1628 square miles

3 mines, 1 plant, 1 quarry, oil wells—120 men

Fluorspar	\$ 1,354,600
Petroleum	2,776,440
Gas	3,104,706
Total.....	\$ 5,881,146
TOTAL PRODUCTION FOR COUNTY.....	\$ 7,235,746

JEFFERSON COUNTY

* GOLDEN

Area 791 square miles

14 mines, 3 plants, 23 quarries, oil wells—278 men

Beryl	\$ 2,000
Uranium	
Vanadium	
Rare earth	800
Total.....	\$ 2,800

Crushed stone	34,400
Clay	580,000
Feldspar	38,450
Sand and gravel	2,200,000
Mica	2,100
Total.....	\$ 2,857,750

Petroleum	\$ 3,415
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TOTAL PRODUCTION FOR COUNTY.....	\$ 2,861,165
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LAKE COUNTY

* LEADVILLE

Area 384 square miles

9 mines, 6 plants, 2 placers—2475 men

Gold	\$ 250,000
Silver	400,000
Copper	245,000
Lead	1,112,000
Zinc	1,844,000
Tin	30,795
Molybdenum	50,109,464
Tungsten	2,578,000
Pyrite	59,041
Total.....	\$56,628,300

Silica rock	8,000
Sand and gravel	200,000
Total.....	\$ 208,000

TOTAL PRODUCTION FOR COUNTY.....	\$56,836,300
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LA PLATA COUNTY

* DURANGO

Area 1691 square miles

5 mines, 2 plants, oil wells—288 men

Gold	\$	18,000
Silver		10,000
		<hr/>
Total.....	\$	28,000
Sand and gravel		40,000
Gem stones		12,000
		<hr/>
Total.....	\$	52,000
Petroleum		38,909
Gas		2,811,970
		<hr/>
Total.....	\$	2,850,879
TOTAL PRODUCTION FOR COUNTY.....	\$	2,930,879

LARIMER COUNTY

* FORT COLLINS

Area 2640 square miles

2 mines, 2 plants, 7 quarries, oil wells—142 men

Gypsum	\$	64,307
Limestone		352,552
Cement		4,046,391
Sand and gravel		500,000
Building stone		90,000
Mica and Feldspar		10,585
		<hr/>
Total.....	\$	5,063,835
Petroleum		704,413
Gas		5,312
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Total.....	\$	709,725
TOTAL PRODUCTION FOR COUNTY.....	\$	5,773,560

LAS ANIMAS COUNTY

* TRINIDAD

Area 4798 square miles

1 quarry, oil wells—48 men

Clay	\$	300,000
		<hr/>
TOTAL PRODUCTION FOR COUNTY.....	\$	300,000

LOGAN COUNTY

* STERLING

Area 1849 square miles
 Oil wells—490 men

Alabaster	\$	6,100
Sand and gravel		500,000
Total.....	\$	506,100
Petroleum		20,300,803
Gas		1,512,903
Total.....	\$	21,813,706
TOTAL PRODUCTION FOR COUNTY.....	\$	22,319,806

MESA COUNTY

* GRAND JUNCTION

Area 3334 square miles
 71 mines, 3 plants, oil wells—1631 men

Uranium		
Vanadium		
Total.....		
Sand and gravel	\$	500,000
Gas	\$	100,568
TOTAL PRODUCTION FOR COUNTY.....	\$	600,568

MINERAL COUNTY

* CREEDE

Area 923 square miles
 5 mines, 1 plant, 1 quarry—76 men

Gold	\$	51,000
Silver		174,000
Copper		14,000
Lead		350,000
Zinc		301,000
TOTAL PRODUCTION FOR COUNTY.....	\$	890,000

MOFFAT COUNTY

* CRAIG

Area 4761 square miles
 4 mines, 1 plant, oil wells—495 men

Uranium		
Vanadium		
Total.....		
Petroleum	\$	4,282,819
Gas		1,163,508
Total.....	\$	5,446,327
TOTAL PRODUCTION FOR COUNTY.....	\$	5,446,327

MONTEZUMA COUNTY

* CORTEZ

Area 2097 square miles

4 mines, oil wells—214 men

Sand and gravel	\$ 153,000
Petroleum	15,270
Gas	510,002
Total.....	\$ 525,272
TOTAL PRODUCTION FOR COUNTY.....	\$ 678,272

MONTROSE COUNTY

* MONTROSE

Area 2240 square miles

169 mines, 3 plants, projects—1850 men

Uranium	
Vanadium	
Total.....	
Sand and gravel	\$ 80,000
TOTAL PRODUCTION FOR COUNTY.....	\$ 80,000

MORGAN COUNTY

* FORT MORGAN

Area 1300 square miles

Oil wells—420 men

Sand and gravel	\$ 190,000
Petroleum	21,300,961
Gas	1,019,400
Total.....	\$22,320,361
TOTAL PRODUCTION FOR COUNTY.....	\$22,510,361

OURAY COUNTY

* OURAY

Area 540 square miles

12 mines, 1 mill—240 men

Gold	\$ 71,477
Silver	61,100
Copper	121,756
Lead	170,000
Zinc	200,000
TOTAL PRODUCTION FOR COUNTY.....	\$ 624,333

PARK COUNTY

* FAIRPLAY

Area 2178 square miles
8 mines, 1 quarry, 1 plant—158 men

Gold	\$ 6,000
Silver	10,100
Lead	14,050
Zinc	10,200
Total.....	\$ 40,350
Feldspar	6,100
Rare earth	2,000
Beryl	120,000
Total.....	\$ 128,100
TOTAL PRODUCTION FOR COUNTY.....	\$ 168,450

PUEBLO COUNTY

* PUEBLO

Area 2414 square miles
1 plant, 5 quarries, 6 mines—148 men

Clay	\$ 293,288
Sand and gravel	1,600,000
Mica	48,690
TOTAL PRODUCTION FOR COUNTY.....	\$ 1,941,978

RIO BLANCO COUNTY

* MEEKER

Area 3264 square miles
1 mine, oil wells—461 men

Uranium
Vanadium
Total.....
Sand and gravel	\$ 100,000
Petroleum	\$88,682,782
TOTAL PRODUCTION FOR COUNTY.....	\$88,782,782

RIO GRANDE COUNTY

* DEL NORTE

Area 916 square miles
2 mines—16 men

Copper	\$ 2,500
Sand and gravel	\$ 100,000
TOTAL PRODUCTION FOR COUNTY.....	\$ 102,500

ROUTT COUNTY

* STEAMBOAT SPRINGS

Area 2331 square miles

1 mine, 1 quarry, oil wells—57 men

Volcanic cinders	\$ 23,715
Petroleum	287,990
Gas	1,032
Total.....	\$ 289,022
TOTAL PRODUCTION FOR COUNTY.....	\$ 312,737

SAGUACHE COUNTY

* SAGUACHE

Area 3146 square miles

17 mines, 2 mills, 1 quarry—147 men

Gold	\$ 4,750
Silver	11,250
Lead	12,200
Zinc	9,800
Uranium	
Vanadium	
Total.....	\$ 38,000
Turquoise	14,700
Sand and gravel	30,000
Total.....	\$ 44,700
TOTAL PRODUCTION FOR COUNTY.....	\$ 82,700

SAN JUAN COUNTY

* SILVERTON

Area 392 square miles

13 mines, 1 mill—110 men

Gold	\$ 34,500
Silver	22,300
Copper	25,000
Lead	104,400
Zinc	36,000
Vanadium	
TOTAL PRODUCTION FOR COUNTY.....	\$ 222,200

SAN MIGUEL COUNTY

* TELLURIDE

Area 1284 square miles

86 mines, 2 mills, projects—848 men

Gold	\$ 742,900
Silver	800,950
Copper	2,100,000
Lead	2,375,200
Zinc	3,005,000
Bog iron	27,000
Uranium	
Vanadium	
TOTAL PRODUCTION FOR COUNTY.....	\$ 9,051,050

SUMMIT COUNTY

* BRECKENRIDGE

Area 616 square miles
 10 mines, 2 mills, 1 placer—365 men

Gold	\$ 4,000
Silver	9,000
Lead	25,000
Zinc	15,000

TOTAL PRODUCTION FOR COUNTY.....\$ 53,000

TELLER COUNTY

* CRIPPLE CREEK

Area 555 square miles
 10 mines, 1 mill, 2 quarries—255 men

Gold	\$ 1,645,270
Silver	5,000

Total.....\$ 1,650,270

Monumental stone	11,325
Feldspar	5,300
Peat	5,358

Total.....\$ 21,983

TOTAL PRODUCTION FOR COUNTY.....\$ 1,672,253

WASHINGTON COUNTY

* AKRON

Area 2530 square miles
 Oil wells—120 men

Petroleum	\$21,889,771
Gas	433,828

TOTAL PRODUCTION FOR COUNTY.....\$22,323,599

WELD COUNTY

* GREELEY

Area 4033 square miles
 Oil wells—100 men

Sand and gravel	\$ 100,000
Petroleum	7,313,458
Gas	272,774

Total.....\$ 7,586,232

TOTAL PRODUCTION FOR COUNTY.....\$ 7,686,232

* County Seats

SAFETY AWARDS

The following list of companies, all of whom employed ten or more men, worked the entire year of 1957 without a lost-time accident and were the recipients of Colorado Bureau of Mines Safety Awards:

- American Smelting & Refining Company, Globe Plant, Denver
- The California Company, Ault
- Booth Eckman, Nucla
- General Chemical Division, Allied Chemical & Dye Corporation, Denver
- General Chemical Division, Allied Chemical & Dye Corporation, Valmont Plant, Boulder
- Golden Cycle Corporation, Carlton Mill, Victor
- Ideal Cement Company, Boettcher Quarry, Fort Collins
- Ideal Cement Company, Portland Quarry, Portland
- International Minerals & Chemical Corporation, Denver Plant, Denver
- Loffland Brothers Company, Rigs No. 8 and No. 13, Casper, Wyoming
- The Noble Drilling Company, Colorado Operations, Tulsa, Oklahoma
- George W. Parfet Estate, Golden
- Sterling Contracting Company, Fort Collins
- Sterling Paving Company, Fort Collins
- Sterling Sand and Gravel Company, Fort Collins
- United States Atomic Energy Commission, Denver Area, Denver
- United States Atomic Energy Commission, Grand Junction Area, Grand Junction
 - National Lead Company, AEC Contractors, Grand Junction
 - Lucius Pitkin Incorporated, AEC Contractors, Grand Junction
- United States Gypsum Company, Loveland
- Utah Mining Company, Inc., Montrose
- Vanadium Corporation of America, Firecracker No. 1 Mine, Durango
- Western Feldspar Milling Company, Salida

ACCIDENTS

There were twenty-two fatal accidents in the mineral industry and construction projects in Colorado in 1957. Ten of these fatal accidents occurred on mining properties, seven of which were underground and three on the surface. Two fatalities occurred at milling properties and one at a smelter, four at oil rigs, two at water reclamation tunnels, and three on highway construction. Nine of the fatal accidents were caused by falling rock, five were caused by transportation equipment, two by improper blasting procedure, four by mechanical equipment, one by cable entanglement, and one by suffocation in an ore bin. The average fatality age in the metal mining industry for 1957 was forty-three, milling thirty-eight, projects thirty-five and oil wells twenty-six. This would indicate that the mining accidents were caused, not by inexperience, but by a degree of carelessness on the part of experienced men. A large percentage of the oil well accidents were sustained by younger men and this would indicate inexperience.

All of the above fatal accidents were investigated by the Bureau of Mines and complete reports were submitted by the Inspectors. The direct cause of each accident was determined and not one of the above listed accidents was classed as unavoidable and most were attributed to a degree of carelessness by the party or parties involved.

A total of 38,293,600 man-hours was worked in the industry in 1957 with a total of 1,297 lost-time injuries which resulted in 137,811 days lost from these accidents. This includes 6,000 days lost for each fatal accident.

The fatal accident rate per 1,000 men employed in mining was 1.24 and the fatal accident rate per 1,000 men employed in the oil industry was 1.23. There were 800 men employed per fatal accident in mines, mills, quarries, etc., and 11.9 men employed per lost-time accident. One fatal accident occurred for every 928,000 tons of ore mined and for each accident 22,946 tons were produced. In the oil industry 810 men were employed for each fatality and 13.9 men were employed per injury. There was one fatal accident for every 13,745,575 barrels of oil produced and one lost-time accident for every 235,970 barrels of oil production.

SUMMARY OF ACCIDENTS—1957

	Total Man-Hours	Lost-Time Injuries	Number of Days Lost	Frequency Rate Per One Million Man-Hours	Severity Rate Per One Million Man-Hours
Mines, Surface	2,695,200	71	18,871	26.3	7,001.
Mines, Underground	10,931,200	692	47,761	63.3	4,369.
Quarries, Clay Pits	957,600	26	213	27.1	222.
Mills, Smelters, Plants	11,157,600	100	19,563	8.9	1,753.
State & Federal Projects	4,771,200	175	31,500	36.6	6,602.
Oil Wells	7,780,800	233	19,903	29.9	2,557.
Totals	38,293,600	1,297	137,811	33.8	3,598.

This table includes the loss of 22 fatalities and 2,030 days due to 16 permanent partial disabilities.

Frequency Rate = $\frac{\text{Number of Injuries} \times 1,000,000}{\text{Number of Man-Hours of Exposure}}$

Severity Rate = $\frac{\text{Total Time Charges in Days} \times 1,000,000}{\text{Number of Man-Hours of Exposure}}$

FATAL ACCIDENTS—1957

Date	Name	Employed by	Cause of Death
1-30-57	R. H. Vasholtz	L. M. Hollingsworth & Associates	Improper blasting procedure
3-9-57	George L. Hedrick	Juniper Oil & Mining Company	Crushed by falling pit wall
4-25-57	Joe Martinez	Gunnison Mining Company	Crushed by falling rock
5-3-57	James Hoza	Climax Molybdenum Company	Crushed between mucker and timber
5-10-57	Lestlie E. Barnett	Golden Cycle Corporation (Uravan)	Crushed between skip and timber
8-12-57	William H. Dexter	Rainbows End Uranium Company	Improper blasting procedure
9-8-57	Tilden S. Mills	Climax Molybdenum Company	Crushed by falling rock (Finger)
9-25-57	Rock J. Lebrum	Lark Washburn (U.C.N.C.)	Crushed by falling rock
9-26-57	Felix DeVencintis	Idarado Mining Company (Ouray)	Fall of rock and man
10-12-57	Lewis L. Jones	Beaver Mesa Uranium, Inc.	Crushed by fall of rock
1-21-57	Harold Roberts	Union Carbide Nuclear Company (Rifle)	Run over, crushed by tractor
2-3-57	J. G. Mascarenaz	American Smelting & Refining Company (Leadville)	Crushed between loader and trestle
11-7-57	Bruce Leon Clarada	Trace Elements Corporation	Suffocated in ore bin cave
3-11-57	C. E. Banks	Signal Oilfield Service	Slack cable looped around head
3-22-57	G. K. Miller	Jet Drilling Company, Inc.	Crushed between sub-structures
5-4-57	Arnaslacio Garcia	Prince Brothers Drilling Company	Crushed between tongs and works
7-30-57	James E. Soderstrom	Halliburton Oil Well Cementing Company	Hit by rotating hose (Stem torque)
4-19-57	A. J. Diritto	Hinman Brothers Construction Company	Crushed by falling rock (Cut wall)
4-19-57	E. G. Beck	Hinman Brothers Construction Company	Crushed by falling rock (Cut wall)
4-21-57	R. W. Arrot	Corp Construction Company	Crushed by overturning tractor
5-8-57	Robert Rodriguez	Michigan Sewer Constructors	Crushed by falling rock (Water tunnel)
10-11-57	Robert E. Hauser	C. F. Lytle, Inc.	Run over by dump truck

MILLS, SMELTERS, PLANTS

OIL WELLS

PROJECTS

AGENCY CAUSING ACCIDENT

	Fatalis	Temporary Injuries Loss of one day or more	
MINES, SURFACE			
Bars - Bins - Chutes		1	
Cables - Hose - Ropes		2	
Cars - Motors - Vehicles		6	
Containers		2	
Doors - Windows - Gates		1	
Drills - Drilling Equipment		11	
Explosives - Loading, Firing	1	1	
Electricity - Elec. Equipment		1	
Falls - Floor - Ice - Snow		11	
Ladders - Manways		1	
Machinery - Tools		7	
Materials		3	
Metal Objects		9	
Premature or Delayed Blasts	1		
Rock - Ore - Ground	1	9	
Screens - Tracks		2	
Timber - Lumber - Poles		1	
	—	—	—
Totals	3	68	71

QUARRIES

Cars - Motors - Vehicles		2	
Falls - Floor - Ice - Snow		6	
Ladders - Manways		1	
Machinery - Tools		2	
Metal Objects		1	
Rock - Ore - Ground		13	
Timber - Lumber - Poles		1	
		—	
Total		26	

MINES, UNDERGROUND

Bars - Bins - Chutes		20	
Cables - Hose - Ropes		27	
Cars - Motors - Vehicles		114	
Chains - Gears - Sprockets		1	
Belts - Conveyors - Pulleys		4	
Chemicals		1	
Containers		8	
Drills - Drilling Equipment		17	
Dust and Particles		1	
Explosives - Loading, Firing		4	
Electricity - Elec. Equipment		6	
Falls - Floor - Ice - Snow	2	48	

AGENCY CAUSING ACCIDENT—Continued

	Fatals	Temporary Injuries Loss of one day or more	
Falling or Flying Objects		1	
Flames - Fire - Hot Substances		4	
Hoists - Hoisting Apparatus		4	
Ladders - Manways		9	
Machinery - Tools	1	98	
Materials		6	
Metal Objects		31	
Platforms - Staging - Scaffolds		5	
Premature or Delayed Blasts		2	
Rock - Ore - Ground	4	194	
Screens - Tracks		11	
Tanks - Atmosphere		7	
Timber - Lumber - Poles		59	
Unclassified - Insufficient Data		3	
	—	—	—
Totals	7	685	692

MILLS, SMELTERS, PLANTS, ETC.

Bars - Bins - Chutes		4	
Cables - Hose - Ropes		3	
Cars - Motors - Vehicles	2	4	
Belts - Conveyors - Pulleys		1	
Containers		5	
Chemicals		7	
Drills - Drilling Equipment		1	
Dust and Particles		2	
Explosives - Transportation		1	
Electricity - Elec. Equipment		1	
Falls - Floor - Ice - Snow		10	
Flames - Fire - Hot Substances		12	
Hoists - Hoisting Apparatus		2	
Ladders - Manways		3	
Machinery		12	
Materials		3	
Metal Objects		9	
Platforms - Staging - Scaffolds		1	
Rock - Ore - Ground	1	12	
Screens - Tracks		1	
Tanks - Atmosphere		1	
Timber - Lumber - Poles		2	
	—	—	—
Totals	3	97	100

AGENCY CAUSING ACCIDENT—Continued

	Fatals	Temporary Injuries Loss of one day or more	
STATE AND FEDERAL PROJECTS			
Bars - Bins - Chutes		2	
Cables - Hose - Ropes		2	
Cars - Motors - Vehicles	1	17	
Containers		3	
Drills - Drilling Equipment		5	
Electricity - Elec. Equipment		1	
Falls - Floor - Ice - Snow		12	
Flames - Fire - Hot Substances		1	
Hoists - Hoisting Apparatus		1	
Machinery	1	19	
Materials		4	
Metal Objects		22	
Platforms - Staging - Scaffolds		1	
Rock - Ore - Ground	3	46	
Screens - Tracks		24	
Tanks - Atmosphere		3	
Timber - Lumber - Poles		7	
	<hr/>	<hr/>	<hr/>
Totals	5	170	175

OIL WELLS

Bars - Bins - Chutes		5	
Cables - Hose - Ropes	1	9	
Cars - Motors - Vehicles		2	
Chains - Gears - Sprockets		11	
Chemicals		2	
Containers		2	
Drills - Drilling Equipment		46	
Electricity - Elec. Equipment		2	
Falls - Floor - Ice - Snow		24	
Flames - Fire - Hot Substances		9	
Machinery		28	
Materials		4	
Metal Objects	1	54	
Platforms - Staging - Scaffolds	1	3	
Rock - Ore - Ground		2	
Timber - Lumber - Poles		7	
Tongs	1	19	
	<hr/>	<hr/>	<hr/>
Totals	4	229	233

TYPE, NATURE AND SITE OF INJURY

	Fatals	Temporary Injuries Loss of one day or more	
MINES, SURFACE			
TYPE OF INJURY			
Burns - Shock	1	2	
Caught in or between		6	
Fall on same level		4	
Fall on different level		1	
Handling		14	
Striking against - Struck by	2	32	
Slip - Stepping on		9	
Unclassified - Insufficient Data		1	
	—	—	—
Totals	3	69	72

NATURE OF INJURY

Foreign Bodies		3	
Cuts - Bruises - Lacerations - Punctures		34	
Strains - Sprains - Dislocations		16	
Hernia		1	
Respiratory	1	1	
Fractures	2	17	
Burns - Scalds - Shock		1	
	—	—	—
Totals	3	73	76

SITE OF INJURY

Eye		5	
Head - Face - Neck		9	
Trunk		14	
Upper Extremities		13	
Lower Extremities		25	
General	3	2	
	—	—	—
Totals	3	68	71

TYPE, NATURE AND SITE OF INJURY—Continued

MINES, UNDERGROUND TYPE OF INJURY	Fatals	Temporary Injuries Loss of one day or more	
Burns - Shock		8	
Caught in or between	2	107	
Fall on same level		16	
Fall on different level	1	36	
Handling		127	
Inhalation - Suffocation		6	
Striking against - Struck by	4	329	
Slip - Stepping on		72	
Unclassified - Insufficient Data		1	
	—	—	—
Totals	7	702	709

NATURE OF INJURY

Foreign Bodies		32	
Cuts - Bruises - Lacerations - Punctures		349	
Strains - Sprains - Dislocations		199	
Hernia		11	
Respiratory		5	
Fractures	7	103	
Amputation		6	
Burns - Scalds - Shock		9	
Occupational Diseases		3	
Nature Unknown		1	
	—	—	—
Totals	7	718	725

SITE OF INJURY

Eye		44	
Head - Face - Neck	2	57	
Trunk	2	198	
Upper Extremities		176	
Lower Extremities		272	
General	3	9	
Insufficient Data		1	
	—	—	—
Totals	7	757	764

TYPE, NATURE AND SITE OF INJURY—Continued

	Fatales	Temporary Injuries Loss of one day or more
QUARRIES		
TYPE OF INJURY		
Caught in or between		2
Fall on same level		1
Fall on different level		3
Handling		2
Striking against - Struck by		14
Slip - Stepping on		4
	—	—
Totals		26

NATURE OF INJURY

Foreign Bodies	1
Cuts - Bruises - Lacerations - Punctures	10
Strains - Sprains - Dislocations	8
Fractures	7
	—
Totals	26

SITE OF INJURY

Eye	2
Head - Face - Neck	3
Trunk	4
Upper Extremities	7
Lower Extremities	11
	—
Totals	27

TYPE, NATURE AND SITE OF INJURY—Continued

	Fatals	Temporary Injuries Loss of one day or more	
MILLS, SMELTERS, PLANTS, ETC.			
TYPE OF INJURY			
Burns - Shock		17	
Caught in or between		6	
Fall on different level		9	
Handling		20	
Inhalation - Suffocation		5	
Striking against - Struck by	3	26	
Slip - Stepping on		15	
	—	—	—
Totals	3	98	101

NATURE OF INJURY

Foreign Bodies		7	
Cuts - Bruises - Lacerations - Punctures	1	25	
Strains - Sprains - Dislocations	1	29	
Hernia		3	
Respiratory	1		
Fractures		15	
Amputation		1	
Burns - Scalds - Shock		20	
Occupational Diseases		1	
	—	—	—
Totals	3	101	104

SITE OF INJURY

Eye		10	
Head - Face - Neck	1	11	
Trunk	1	37	
Upper Extremities		19	
Lower Extremities		27	
General	1	4	
	—	—	—
Totals	3	108	111

TYPE, NATURE AND SITE OF INJURY—Continued

	Fatales	Temporary Injuries Loss of one day or more	
STATE AND FEDERAL PROJECTS			
TYPE OF INJURY			
Burns - Shock		2	
Caught in or between		32	
Fall on same level		6	
Fall on different level		4	
Handling		17	
Inhalation - Suffocation		3	
Striking against - Struck by	5	96	
Slip - Stepping on		13	
	—	—	—
Totals	5	173	178

NATURE OF INJURY

Foreign Bodies		8	
Cuts - Bruises - Lacerations - Punctures		91	
Strains - Sprains - Dislocations		30	
Hernia		1	
Respiratory		2	
Fractures	5	41	
Amputation		3	
Burns - Scalds - Shock		2	
Occupational Diseases		1	
	—	—	—
Totals	5	179	184

SITE OF INJURY

Eye		9	
Head - Face - Neck		10	
Trunk	1	33	
Upper Extremities		49	
Lower Extremities		66	
General		8	
	—	—	—
Totals	5	175	180

TYPE, NATURE AND SITE OF INJURY—Continued

	Fatals	Temporary Injuries Loss of one day or more	
OIL WELLS			
TYPE OF INJURY			
Burns - Shock		14	
Caught in or between	1	53	
Fall on same level		4	
Fall on different level	1	18	
Handling		22	
Striking against - Struck by	2	99	
Slip - Stepping on		18	
Unclassified - Insufficient Data		1	
	—	—	—
Totals	4	229	233

NATURE OF INJURY

Foreign Bodies		4	
Cuts - Bruises - Lacerations - Punctures		123	
Strains - Sprains - Dislocations		46	
Fractures	3	42	
Amputation	1	6	
Burns - Scalds - Shock		11	
	—	—	—
Totals	4	232	236

SITE OF INJURY

Eye		9	
Head - Face - Neck	2	28	
Trunk	1	41	
Upper Extremities		96	
Lower Extremities		60	
General		1	
Insufficient Data		1	
	—	—	—
Totals	4	236	240

MEN EMPLOYED—1957

The number of men employed in the mineral industry in 1957 showed a slight increase over the number employed in 1956. The increase was greatest during mid-year, however, and many properties closed during the last half of 1957.

	Mines		Mills, Plants, Smelters		Quarries, Clay Mines & Pits		Placers		Pro- jects Men	Oil Wells Men
	No.	Men	No.	Men	No.	Men	No.	Men		
District 1 ...	97	404	30	356	35	162	7	12	320	1840
District 2 ...	34	309	6	109	27	195	1	1	217	240
District 3 ...	59	2014	21	2032	11	99	3	10	648	800
District 4 ...	378	2547	16	2152	1	6	1	1	803	362
Totals	568	5274	73	4649	74	462	12	24	1988	3242

TOTAL MEN EMPLOYED

	Underground	Surface	Oil Wells	Totals
District 1	417	918	1840	3175
District 2	316	514	240	1070
District 3	1924	2880	800	5604
District 4	1953	3555	362	5870
Totals	4610	7867	3242	15,719

INSPECTIONS

Mine inspections again increased this year over 1956 and this is due primarily to better access roads and a better knowledge of the territory by the Inspectors. Although there were 100 fewer properties reported during the year, two districts showed an increase over 1956. Every known property was inspected at least once and many were inspected several times or as often as time permitted. Some properties were consolidated in one report which will account partially for the decrease in listed operations.

1957 INSPECTIONS

Made By

	District 1 Blake	District 2 Theobald	District 3 Doyle & Keating	District 4 Ray & Pakka	Total
1957					
January	19	9	37	43	108
February	18	7	12	39	76
March	18	0	37	38	93
April	13	9	39	45	106
May	21	10	31	43	105
June	26	11	38	46	121
July	39	6	34	39	118
August	20	9	38	27	94
September	22	0	36	35	93
October	38	9	41	32	120
November	7	3	24	35	69
December	22	4	13	27	66
Totals	263	77	380	449	1169

	Mines	Quarries & Clay Mines	Mills & Smelters	Placers	Projects	Oil Wells	Total
District 1	111	28	35	1	25	63	263
District 2	34	17	6	0	1	19	77
District 3	139	21	50	0	70	100	380
District 4	393	0	13	0	16	27	449
Totals	677	66	104	1	112	209	1169

INFORMATION REPORTS

Consolidation of properties on one information report and the fact that several mining properties closed before an information report could be completed, accounts for a drop of 131 information reports this year. These reports constitute a permanent property record and are on file in the office of the Colorado Bureau of Mines for public information. Information reports are made on all active properties during the year from information gathered on several visits and inspections.

1957 INFORMATION REPORTS

Made By

1957	District 1 Blake	District 2 Theobald	District 3 Doyle & Keating	District 4 Ray & Pakka	Total
January	13	0	3	30	46
February	3	0	2	28	33
March	0	0	1	34	35
April	3	0	1	45	49
May	13	0	3	23	39
June	13	0	7	16	36
July	8	2	8	46	64
August	8	27	8	26	69
September	15	0	9	39	63
October	12	9	6	28	55
November	7	2	4	29	42
December	9	1	4	39	53
Totals	104	41	56	383	584

	Mines	Quarries & Clay Mines	Mills & Smelters	Placers	Projects	Oil Wells	Total
District 1	77	10	9	2	6	0	104
District 2	21	14	4	1	1	0	41
District 3	21	1	15	1	8	10	56
District 4	359	1	4	1	14	4	383
Totals	478	26	32	5	29	14	584

TOTAL INSPECTIONS, PARTIAL INSPECTIONS AND INFORMATION DATA

District 1	District 2	District 3	District 4	Total
367	118	436	832	1753

LIST OF OPERATING MINES IN VARIOUS COUNTIES IN COLORADO—1957

OPERATING MINES IN BOULDER COUNTY

Name of Mine	Location	Operator	P. O. Address	Product
April Fool-Good Friday	Boulder Falls	Shiprock Industries, Inc.	Box 461, Boulder	Tungsten
Blue Bird	Nederland	George W. Ross, Sr.	Box 397, Nederland	Silver, Lead
Boulder County Tunnel	Cardinal	H. W. Low Estate	4882 Elm Court, Denver 21	Gold
Bradshaw	Raymond	Bradshaw Brothers	206 Bowen St., Longmont	Uranium
Caribou Shaft	Caribou	Nederland Mines, Inc.	1821 Marine St., Boulder	Gold, Silver, Lead, Zinc, Copper
Cold Spring No. 1 & 3	Nederland	Cold Spring Tungsten, Inc.	Box 7, Nederland	Ferberite
Copper King	Gold Hill	Robert L. Donnelly	1426 Akron, Aurora	Nickel, Cobalt, Copper
Dozer	Nederland	Reynolds Tungsten Corp.	Nederland	Ferberite
Emmett	Jamestown	H. M. Williamson & Son	Box 431, Boulder	Fluorspar
Hoosier	Nederland	Johnson Bros. & Prime	Nederland	Tungsten
Jamestown (Burlington)	Jamestown	General Chemical Division, Allied Chemical & Dye Corp.	Box 228, Boulder	Fluorspar
La Salle No. 1	Jamestown	La Salle Mining Co.	Box 217, Grand Junction	Uranium
Long Shot	Nederland	Long Shot Mining Co.	Nederland	Tungsten
National No. 2	Sugarloaf	Miller H. Myers	Sugarloaf Route, Boulder	Gold, Silver
Occidental	Ward	Colorado Minerals, Inc.	Box 43, Boulder	Gold, Silver, Lead
Santa La Sarta	Nederland	Blue Bird Mining Co.	10101 W. 9th Drive, Lakewood	Gold, Silver
Sisk	Hall Gulch	Stanley Woodward, Sr.	Lyons	Uranium
Sunday	Nederland	Cowdery & Smith	2000 Marine St., Boulder	Tungsten
Tungsten	Nederland	Tungsten Mining Co.	420 Pine St., Boulder	Tungsten
Western Slope	Nederland	Blue Bird Mining Co.	10101 W. 9th Drive, Lakewood	Gold, Silver, Lead

OPERATING MINES IN CHAFFEE COUNTY

Lilly	Garfield	Minerals Production Co. of California	155 Sansome St., San Francisco, Calif.	Silver, Lead, Zinc
Sitting Bull	St. Elmo	Kenneth C. Glaser	620 Park Ave., Salida	Silver, Lead
Slim Chance	Twin Lakes	Slim Chance Mining Co.	Twin Lakes	Gold, Silver
Stonewall	St. Elmo	Divide Lead-Silver Mining Corp.	Box 295, Leadville	Silver, Lead, Zinc
Tom Collins	Buena Vista	Free Gold Mining Co.	Buena Vista	Gold
U.S. Fluorspar Mine	King's Crossing	Continental Mineral Resources, Inc.	Box 445, Salida	Fluorspar
Wapaca	Buena Vista	Natural Power Company of America	302 National Bank of Commerce Bldg., Tulsa, Okla.	Copper

OPERATING MINES IN CLEAR CREEK COUNTY

Alma Lincoln Ashby Tunnel	Shanish Bar	Alma Lincoln Mining Co.	Idaho Springs	Tourist
Bald Eagle	Silver Plume	C. R. Sloan, et al	Frisco	Gold, Silver, Lead, Zinc
Bard Creek	Virginia Canyon	Bald Eagle Mining Co.	Box 822, Idaho Springs	Gold, Silver, Lead, Zinc
Bellvue-Hudson	Empire	Gold Coin Mining & Leasing Co.	2106 Broadway, Denver 5	Gold, Silver, Lead, Copper
Braun	Lawson	Gold Coin Mining & Leasing Co.	2106 Broadway, Denver 5	Gold, Silver, Lead
	Trail Creek	Gilpin Uranium, Inc.	1128 Colorado Blvd., Idaho Springs	Gold, Silver, Lead, Zinc

OPERATING MINES IN CLEAR CREEK COUNTY—Continued

Name of Mine	Location	Operator	P. O. Address	Product
Central (Big 5 Tunnel)	Idaho Springs	Clear Creek Mining Co.	1727 Boulder St., Denver 11	Gold, Silver, Lead, Zinc
Crazy Girl	Spring Gulch	Rhine Maekey Mines	2550 Yarrow St., Denver 15	Lead
Dixie	Ute Creek	Vicon, Inc.	Idaho Springs	Gold
Forge Hill	Virginia Canyon	Forge Hill Mines, Inc.	Idaho Springs	Gold, Silver, Lead, Zinc, Copper
Fourth of July	Virginia Canyon	Komo Mines, Inc.	Idaho Springs	Silver, Lead, Zinc
Franklin	Gilson Gulch	Franklin Silver Age Mining Co.	Central City	Gold, Silver, Lead
Freeland Extension	Trail Creek	Frank & Eva A. Lear	Idaho Springs	Gold, Silver, Lead, Zinc
Freighter's Friend	Gilson Gulch	G. B. L. Company	812 Emporia St., Aurora	Gold, Silver, Lead
Gold Anchor	Alice	Gold Anchor Mining Co.	Ada, Okla.	Gold
Grover	Beaver Brook Canyon	Joe Grover	Evergreen	Feldspar
Highlander	Virginia Canyon	Highlander Corp.	4610 Robb Road, Wheatridge	Silver, Lead
Idaho Bride	Virginia Canyon	Komo Mines, Inc.	Idaho Springs	Gold
Johnny Bull	Silver Plume	Consolidated Gold & Uranium Corp.	309 Columbine St., Denver 6	Gold, Silver
Keast Tunnel	Trail Creek	Gilpin Uranium, Inc.	1128 Colorado Blvd., Idaho Springs	Gold, Silver, Lead, Zinc
King Cyrus Nos. 1 & 2	Idaho Springs	Lois E. McNulty	7505 Clay St., Westminster	Tourist
Kitty Clyde	Spring Gulch	5-M Corporation	Mining Exchange Bldg., Idaho Springs	Gold, Silver, Lead
Lamertine	Trail Creek	Black Eagle Mining Co.	Box 717, Idaho Springs	Gold, Silver, Lead
Lead Belt	Idaho Springs	Robert W. Stauss & Assoc.	442 S. Xavier St., Denver 19	Lead, Zinc
Little Emma	Idaho Springs	Komo Mines, Inc.	Idaho Springs	Uranium, Silver, Lead
Lone Star No. 6	Clear Creek	Lone Star Mining Co.	Box 6, Idaho Springs	Tourist and Health
Lucania	Fall River	Fall River Power Co.	2545 Teller Court, Lake-wood 15	Uranium, Gold, Silver
Miami Tunnel (Edgar)	Idaho Springs	Colorado School of Mines	Golden	Instruction
Monte Cristo	Idaho Springs	Charles Seymour	2608 Ivy St., Denver 7	Uranium
New Century	Idaho Springs	New Century Mining Co.	4920 Zuni St., Denver 11	Gold, Silver
Omaha (Nevada Tunnel)	Empire	5-M Corporation	Mining Exchange Bldg., Idaho Springs	Lead, Zinc
Princess of India	Lawson	Walsh & Babcock	7900 W. 52nd Ave., Arvada	Silver, Lead
Red Elephant	Lawson	Lisbon Valley Uranium Co.	501 Kittredge Bldg., Denver 2	Silver, Lead
Rice Winze	Silver Plume	Thomilson & Prince	Silver Plume	Silver, Lead, Zinc
Silver Cloud	Silver Plume	Andy Riebel	Silver Plume	Silver, Lead, Zinc
Tropics	Virginia Canyon	Gold Coin Mining & Leasing Co.	2106 Broadway, Denver 5	Silver, Lead, Zinc
OPERATING MINES IN CUSTER COUNTY				
Star Nos. 1, 2, 3, 4	Snyder Gulch	Cotter Corporation	531 Main St., Canon City	Thorium
OPERATING MINES IN DELTA COUNTY				
Doty	Delta	Atlas Mining & Mfg. Co.	414 Main St., Delta	Sulphur
OPERATING MINES IN DOLORES COUNTY				
Mountain Springs	Rico	Rico Argentine Mining Co.	Rico	Silver, Lead, Zinc, Iron
St. Louis Tunnel	Rico	Rico Argentine Mining Co.	Rico	Silver, Lead, Zinc

OPERATING MINES IN EAGLE COUNTY

Eagle Morning Gilman Redcliff The New Jersey Zinc Co. Sigward & Randall Gilman 707 E. 5th St., Leadville Silver, Lead, Zinc Lead, Zinc

OPERATING MINES IN EL PASO COUNTY

Trail Mines, Inc. West of Colorado Springs Trail Mines, Inc. Box 2035, Colorado Springs Thorium

OPERATING MINES IN FREMONT COUNTY

Copper Queen Cotopaxi Carson Mining & Development Co. 123 E. Bijou, Colo. Springs Silver, Copper
 Dreamer Texas Creek Four Star Exploration Co., Inc. Box 412, Canon City Uranium
 Mica Lode Canon City Alex Lockhart & Archie Ellis Canon City Feldspar, Mica
 Ohio West of Colorado Springs Trail Mines, Inc. Box 2035, Colorado Springs Rare Earths
 Oliver Tallahassee Glen D. Williams 818 S. Pueroo Drive, Gallup, Uranium, Vanadium
 Pink Lady Tallahassee Charles Silengo, Inc. Route 1, Box 50, Canon City Thorium
 Snoooper-Dickson Tallahassee Juniper Oil & Mining Co. 415 C. A. Johnson Bldg., Denver 2 Uranium

OPERATING MINES IN GARFIELD COUNTY

Oil Shale Mine Rifle U. S. Bureau of Mines Anvil Points, Rifle Oil Shale

OPERATING MINES IN GILPIN COUNTY

Anglo Celt Black Hawk Silver Lane Mining Co. 2021 West St., Pueblo Gold, Silver
 Big Horn Black Hawk Central City Mining & Investment Corp. Central City Rare Earth
 Bobtail Tunnel Black Hawk Gus Bakos & Robert Hollenback Black Hawk Tourist
 Bonanza Lump Gulch The Success Mining & Exploration, Inc. Box 15, Idaho Springs Gold
 Caledonia Missouri Gulch Chris Bierhaus Central City Gold, Silver, Lead
 Cape Cod Group Black Hawk Central City Mining & Investment Corp. Central City Rare Earth
 Diamond Lil Tunnel Central City William C. Russell, Jr. Central City Tourist
 Dolores Central City Michigan Chemical Corp. Box 481, Golden Rare Earth
 Gold Ridge Lake Gulch Hayes-Wheeler Syndicate Lake Gulch Milling Co. Central City Gold
 Hayes & Wheeler Central City Hayes-Wheeler Syndicate 4755 Newton, Denver 11 Gold, Silver, Lead, Copper
 Helen Gould Lake Gulch Russell Gulch Milling Co. 3200 S. Clayton Blvd., Denver 10 Gold
 Indianola No. 1 Missouri Gulch Mrs. Mae Woods 963 Marine St., Boulder Gold, Silver
 Justice East Extension Lake Gulch GRYCO Box 277, Central City Gold, Silver, Lead, Zinc
 La Crosse Nevadaville Glory Hole, Inc. Central City Gold, Silver, Lead, Zinc, Copper
 Little Colonel Black Hawk John H. Turner Black Hawk Tourist
 Lost Gold Mine Central City Faye M. Clapham Central City Tourist

OPERATING MINES IN GILPIN COUNTY—Cont.

Name of Mine	Location	Operator	P. O. Address	Product
Meeker-Success	Lake Gulch	G. W. Gabriel, Jr.	Route 1, Box 209, Morrison	Gold, Silver, Lead
Moore	Central City	Begstrom & Spielman	Black Hawk	Gold
Pittsburgh	Lake Gulch	Robert E. Brooks	Box 87, Central City	Gold, Silver, Lead
Rara Avis	Eureka Gulch	DeLinde Enterprises	Idaho Springs	Uranium, Gold, Silver, Lead, Zinc
Smith	Black Hawk	Levitt Development Co.	Box 822, Idaho Springs	Gold, Silver, Lead
Spring Day Extension	Leavenworth Gulch	Spring Day Mining Co.	Box 395, Central City	Gold, Silver, Lead, Copper
Toll Gate Tunnel	Black Hawk	Mike McNulty	Black Hawk	Copper
Treasure Key Tunnel (Williams)	Black Hawk	Consolidated Gold Uranium Corp.		Tourist
Web Foot (Larson)	Apex	Eastern Slope Mining Co.	1187 Stout St., Denver 4	Silver, Lead, Copper
Wegotem	Silver Creek	Louis Bell & Assoc.	1022 S. Clay St., Denver 19	Uranium, Vanadium
Wilma	Apex	Nye-Mathews Mining Co.	Box 335, Central City	Gold, Silver, Copper
			Black Hawk	Molybdenum

OPERATING MINES IN GRAND COUNTY

Beaver Claim (Undecided Group)	Hot Sulphur Springs	Newmont Exploration, Ltd.	Box 99, Montrose	Uranium
OPERATING MINES IN GUNNISON COUNTY				
Baxter (Carl L)	Elk Mountain	H. Downing & Frank Hodgson	Box 401, Crested Butte	Gold, Silver, Lead
Daisy	Italian Mountain	Clara L. Mining Co.	1950 River Road, Melrose Park, Ill.	Silver, Lead, Zinc, Copper
Gold Links	Redwell Basin	Redwell Basin Venture	Crested Butte	Gold, Silver, Lead
Keystone	Gold Creek	Revenue Metal Mines Corp.	Ohio City	Lead, Zinc, Copper
Last Chance	Crested Butte	American Smelting & Refining Co.	Crested Butte	Feldspar
Little Darling	Blue Mesa	C. S. & H. Mining Co.	880 S. Garrison St., Denver 15	Silver, Lead, Zinc
Little Indian No. 36	Marble	Murley & Daley	Gilman	Uranium
Micawber	Agate	Pinnacle Exploration, Inc.	Box 144, Gunnison	Gold, Silver, Lead, Zinc, Copper
Raymond	Elk Basin	Standard Uranium Corp.	235 N. Main, Gunnison	
Star X-10-U-8 & Independent	Gold Creek	H & H Exploration Co.	1129 Colorado Ave., Grand Junction	Gold, Silver, Lead, Zinc, Copper
	Italian Mountain	John Lambertson	Box 567, Gunnison	Silver, Lead

OPERATING MINES IN HINSDALE COUNTY

Dalco	Childs Park	Jack C. Costanza & Louis G. Dallo	Box 1005, Pueblo	Gold, Silver
Gold Quartz	Deadman Gulch	Intermountain Engineering Co.	Box 1846, Grand Junction	Gold, Silver, Lead
Pride of America	Hansen Creek	K. C. Knapp	Box 35, Lake City	Gold, Silver, Lead, Zinc

OPERATING MINES IN JACKSON COUNTY

Northgate No. 2 (200 Level)	Northgate	Ozark-Mahoning Co.	Cowdrey	Fluorspar
Whale Pit	Northgate	Ozark-Mahoning Co.	Cowdrey	Fluorspar

OPERATING MINES IN JEFFERSON COUNTY

Ascension	Golden	Yellow Queen Uranium Co.	2027 E. Virginia Ave., Denver 9	Uranium
Cervi Lease	Golden Gate Canyon	Arthur A. Cervi	979 Miller St., Lakewood	Uranium
Charlie	Ralston Creek	Denver-Golden Oil & Uranium Co.	760 Denver Club Bldg., Denver 2	Uranium, Vanadium
Foot Hills	Idledale	Foot Hills Mining Co.	3240 6th St., Boulder	Uranium
Grapevine	Idledale	Grapevine Mining Co.	Box 87, Morrison	Uranium
Madonna	South Platte Canyon	L. M. Hollingsworth	Box 187-A, Morrison	Feldspar
Madonna No. 3	South Platte Canyon	Robinson Mining Co.	Morrison	Feldspar
Malachite	Genessee Gulch	Arapahoe Mining & Uranium Corp.	309 Englewood Nat'l Bank Bldg., Englewood	Copper
Mann No. 1	Soda Lake	Uranium Enterprises, Inc.	2679 Arapahoe St., Boulder	Uranium
Mena Shaft & Tunnel	Ralston Creek	Joseph W. Walsh	4925 Montview Blvd., Denver 7	Uranium
Morrison Lode	Morrison	Arapahoe Mining & Uranium Corp.	309 Englewood Nat'l Bank Bldg., Englewood	Copper
Nare	Golden Gate Canyon	Leigh D. Ohman	800 Bonnie Brae Blvd., Denver 9	Uranium
Schwartzwalder	Ralston Creek	Denver-Golden Oil & Uranium Co.	760 Denver Club Bldg., Denver 2	Uranium
Steve	Ralston Creek	Denver-Golden Oil & Uranium Co.	760 Denver Club Bldg., Denver 2	Uranium, Vanadium
White Cloud	South Platte Canyon	James J. McRoberts	1181 S. Haritan, Denver 23	Rare Earth
White Cloud Shaft	South Platte Canyon	Albert Miller	3155 Walsh St., Westwood	Feldspar

OPERATING MINES IN LAKE COUNTY

Climax Mines	Climax	Climax Molybdenum Co.	Climax	Molybdenum
Hayden Shaft	Fryer Hill	Cadwell Mining Co.	2450 Kendall St., Denver 15	Silver, Lead, Zinc
Helena	Iowa Gulch	F. G. Kaiser	106 Harrison Ave., Leadville	Silver, Lead, Zinc
Hummer No. 1	California Gulch	Late Fork Mining Co., Inc.	110 W. 13th Ave., Denver 4	Silver
Ibex No. 4	Johnny Hill	Wilson & Wolcott	211 E. 4th St., Leadville	Gold, Silver, Lead, Zinc
Irene Shaft	Johnny Hill	Resurrection Mining Co.	Leadville	Gold, Silver, Lead, Zinc
Julia Fiske	Iowa Gulch	Resurrection Mining Co.	Leadville	Silver, Lead, Zinc
Little Alice	Leadville	Louis Kostelic	203 W. 3rd St., Leadville	Gold, Silver, Lead
Lucky Five	Twin Lakes	Lucky Five Mining Co.	204 Harrison Ave., Leadville	Gold, Silver, Lead, Zinc, Copper

OPERATING MINES IN LA PLATA COUNTY

Name of Mine	Location	Operator	P. O. Address	Product
Bessie G	La Plata Canyon	Zodomok Mines, Inc.	101 Folsom, Durango	Gold, Silver, Lead, Zinc
Brawner Tunnel	La Plata Canyon	G. W. Stewart	Box 303, Durango	Gold, Silver, Lead, Zinc
Farmer Boy	La Plata Canyon	O. H. Hawkins	Hesperus	Gold, Silver, Lead, Zinc, Copper
Good Hope No. 2	Lightner Creek	P. C. P. Corporation	Box 433, Loveland	Uranium, Vanadium
Muldoon	Muldoon Mountain	H. E. Knudson	476 2nd Ave., Durango	Gold, Silver, Lead

OPERATING MINES IN MESA COUNTY

Arrowhead No. 11	Calamity Mesa	E. S. Knizley	274 - 27 Road, Grand Junction	Uranium, Vanadium
Arrowhead Nos. 20 & 20-A	Arrowhead Mesa	A. C. Rinderle	404 Sherman Drive, Grand Junction	Uranium, Vanadium
Arrowhead No. 23	Calamity Mesa	Sterry Brothers	Box 5, Grand Junction	Uranium, Vanadium
Arrowhead No. 252	Calamity Mesa	R. L. & D. L. Adamson	Box 1901, Grand Junction	Uranium, Vanadium
Arrowhead Incline No. 1	Calamity Mesa	Sterry Brothers	Route 5, Grand Junction	Uranium, Vanadium
Arrowhead Incline No. 21	Calamity Mesa	H. L. Arbogast	Route 4, Grand Junction	Uranium, Vanadium
Arrowhead Incline No. 22	Calamity Mesa	A. C. Rinderle	404 Sherman Drive, Grand Junction	Uranium, Vanadium
Austin Audit No. 1	Calamity Mesa	A. C. Rinderle	404 Sherman Drive, Grand Junction	Uranium, Vanadium
Belmont Nos. 1 & 2	Calamity Mesa	James Cornelison & Bud Collins	250 Alyce, Grand Junction	Uranium, Vanadium
Black Mammy	Tenderfoot Mesa	Jack Montgomery	Gateway	Uranium, Vanadium
Black Streak	Blue Mesa	Matsumoto & Freytag	Box 631, Grand Junction	Uranium, Vanadium
Blue Bird	Outlaw Mesa	A. C. Rinderle	404 Sherman Drive, Grand Junction	Uranium, Vanadium
Blue Mesa Incline No. 2	Blue Mesa	Alix Mining Co.	212 Petroleum Bldg., Grand Junction	Uranium, Vanadium
Blue Ribbon No. 1	Calamity Mesa	Sterry Brothers	Box 5, Grand Junction	Uranium, Vanadium
Blue Ribbon No. 2	Calamity Mesa	Calvin Ficklin	Box 1861, Grand Junction	Uranium, Vanadium
Blue Ribbon No. 3	Calamity Mesa	Norman Wellman	Box 1901, Grand Junction	Uranium, Vanadium
Bonanza	Calamity Mesa	Lyle Campbell	Box 1698, Grand Junction	Uranium, Vanadium
Calamity No. 1 & 17	Calamity Mesa	Ace Turner	19 1/2 River Road, Fruita	Uranium, Vanadium
Calamity Nos. 13 & 18	Calamity Mesa	Albert J. Harmon	Fruita	Uranium, Vanadium
Calamity Nos. 21 & 27	Calamity Mesa	T. S. Wolverton	Box 311, Grand Junction	Uranium, Vanadium
Calamity Creek	Calamity Mesa	Boyles Brothers Drilling Co.	1321 S. Main, Salt Lake City, Utah	Uranium, Vanadium
Calco	Calamity Creek	Ira Flohr	Box 152, Gateway	Uranium, Vanadium
Cave Audit No. 1	Calamity Mesa	Yeager & Titus	Box 1649, Grand Junction	Uranium, Vanadium
Century Tunnel	Beaver Mesa	Argo Mining Co.	Box 1698, Grand Junction	Uranium, Vanadium
Cherokee Shaft	Beaver Mesa	Beaver Mesa Uranium Co.	1129 Colorado Ave., Grand Junction	Uranium, Vanadium
Cliff Dweller	Calamity Mesa	Earl Hamrick	314 Chipeta, Grand Junction	Uranium, Vanadium
Crescent No. 1	Outlaw Mesa	E. E. Lewis & Assoc.	Box 1481, Grand Junction	Uranium, Vanadium
Cullen Minerals No. 5	Blue Mesa	Robert Durdick	Box 251, Uravan	Uranium, Vanadium
Deal Mining Co.	Calamity Mesa	Deal Mining Co., Inc.	Box 392, Fort Collins	Uranium, Vanadium
Depression No. 6	Flat Top Mesa	Lodestar Uranium, Inc.	Box 1550, Grand Junction	Uranium, Vanadium
Depression No. 6 Shaft	Flat Top Mesa	Edward McManus	3812 North Ave., Grand Junction	Uranium, Vanadium
Dixie	Calamity Mesa	Truman Goode	Uravan	Uranium, Vanadium

OPERATING MINES IN MESA COUNTY (Continued)

Name of Mine	Location	Operator	P. O. Address	Product
Trans-World	Outlaw Mesa	Trans-World Mining Co.	Boston Bldg., Denver 2	Uranium, Vanadium
White Star No. 1	Gateway	L. E. Schooley & Assoc.	Box 1621, Grand Junction	Baffle
Yellow Bird Group	Blue Creek	Deal Mining Co., Inc.	Box 392, Fort Collins	Uranium, Vanadium
Yellow Jacket No. 15	Calamity Mesa	R. I. & D. L. Adamson	Box 1901, Grand Junction	Uranium, Vanadium
Yellow Jacket No. 16	Calamity Mesa	Norman Wellman	Box 1901, Grand Junction	Uranium, Vanadium

OPERATING MINES IN MINERAL COUNTY

Amethyst	East Willow Creek	Emperius Mining Co.	Creede	Lead, Zinc
Commodore	East Willow Creek	Emperius Mining Co.	Creede	Lead, Zinc
Holy Moses Tunnel	West Willow Creek	Sublet Mining Co.	Box 44, Creede	Gold, Silver, Lead
Monon	Sunnyside	Monon Mining & Leasing Co.	Creede	Silver, Lead, Zinc
Outlet Tunnel	East Willow Creek	Outlet Mining Co.	Creede	Gold, Silver, Lead, Zinc

OPERATING MINES IN MOFFAT COUNTY

Little Star No. 1	Little Wolf Creek	Jacob's Chair Mining Co.	Box 721, Moab, Utah	Uranium
Marge Pit No. 1	Maybell	Trace Elements Corp.	Maybell	Uranium, Vanadium
Three Sisters	Craig	Thunderbird Developments, Inc.	Craig	Uranium

OPERATING MINES IN MONTEZUMA COUNTY

Blue Eagle	Cross Canyon	Elree Young	Sago Route, Dove Creek	Uranium, Vanadium
Gold Dollar	East Mancos River	Gold Dollar Associates	403 Felt Bldg., Salt Lake City, Utah	Gold, Silver, Copper
Red Arrow Group	East Mancos River	The First National Oil & Mineral Co.	Box 1595, Pueblo	Gold, Silver
Silver Pick	East Mancos River	A. J. Lych & Louis Miller	10636 S. Western Ave., Chicago 43, Ill.	Gold, Silver, Lead, Copper
Yellow Lizzard	Cross Canyon	Elree Young	Sago Route, Dove Creek	Uranium, Vanadium

OPERATING MINES IN MONTROSE COUNTY

Adak	Dolores River	Rex Uranium Corp.	Box 1238, Farmington, New Mexico	Uranium, Vanadium
Alke	Wedding Bell	O. E. Smart	Box 64, Naturita	Uranium, Vanadium
All Star	Spring Creek Mesa	DeVar Shumway	215 Lands Down, Grand Junction	Uranium, Vanadium
American Eagle	Little Gypsum Valley	Stanley Oliver	Norwood	Uranium, Vanadium

American Eagle No. 4	Little Gypsum Valley	Anschutz Drilling Co.	1411 Mile High Center, Denver 2	Uranium, Vanadium
Arcturus	Wild Steer	Albert Fish	Box 536, Telluride	Uranium, Vanadium
Aztec	Monogram Mesa	C. N. Athey	Box 224, Naturita	Uranium, Vanadium
Baby Ruth	Bull Canyon	C. R. Albano	Box 522, Nucla	Uranium, Vanadium
Badger	Martin Mesa	Micro Copper Corp.	Nucla	Uranium, Vanadium
Badger No. 3	Long Park	Fedel & Blake	Box 472, Uravan	Uranium, Vanadium
Barnard (South)	Long Park	Harold Williams & Assoc.	Box 431, Nucla	Uranium, Vanadium
Beaver	Club Mesa	William Barnett	Naturita	Uranium, Vanadium
Bench Claim	San Miguel River	Ray Shearer & Assoc.	Uravan	Uranium, Vanadium
Bitter Creek	Long Park	Leonard Corp. of America	Durango	Uranium, Vanadium
Black Dinah	Long Park	Leonard Hedgecock	Box 404, Uravan	Uranium, Vanadium
Black Prince	Little Gypsum Valley	O. E. Smart	Box 64, Naturita	Uranium, Vanadium
Black Rock	Dolores Rim	Milton Castor	Box 284, Naturita	Uranium, Vanadium
Blackburn	Monogram Mesa	Gerald Patterson & Assoc.	Naturita	Uranium, Vanadium
Bluebird	Dolores Rim	Cecil Bunker	Box 27, Nucla	Uranium, Vanadium
Bowen Shaft No. 1	Atkinson Mesa	Golden Cycle Corp.	Uravan	Uranium, Vanadium
Buckhorn	Carpenter Ridge	Willoughby Mining Co.	185 Sunset Hills, Grand Junction	Uranium, Vanadium
Burnette No. 5	Saucer Basin	H. F. Burnette	207 Uranium Center, Grand Junction	Uranium, Vanadium
C. F. C.	Long Park	R. G. Simms	Box 662, Rifle	Uranium, Vanadium
Camel No. 6	Bull Canyon	Radium Hill Uranium Co.	Montrose	Uranium, Vanadium
Camoose	Bull Canyon	R. S. Dunn	Box 206, Naturita	Uranium, Vanadium
Canopus	Wild Steer	Joe Weaver	Telluride	Uranium, Vanadium
Canyon Claims	Martin Mesa	Douglas Sullivan	Redvale	Uranium, Vanadium
Carpathia	Long Park	Marion Trone & Albert Sale	Uravan	Uranium, Vanadium
Cashin	La Sal Creek	Cashin Copper Corp.	320 N. 4th St., St. Louis 2, Mo.	Uranium, Vanadium
Cliff Dweller	Dolores Rim	Vanadium Corp. of America	Durango	Silver, Copper
Club Group	Club Mesa	Lark Washburn	Box 850, Uravan	Uranium, Vanadium
Colorado	Long Park	Booth Eckman	Box 163, Nucla	Uranium, Vanadium
Cripple Creek	Long Park	Dan E. Kelly	Route 4, Grand Junction	Uranium, Vanadium
Cripple Creek No. 2	Long Park	Booth Eckman	Box 163, Nucla	Uranium, Vanadium
Crown Prince	Martin Mesa	Marshall Court	Moab, Utah	Uranium, Vanadium
Dakota	Fagle Basin	Henry Trujillo	Route 1, Olathe	Uranium, Vanadium
Dan Patch	Long Park	R. G. Sims	Box 662, Rifle	Uranium, Vanadium
Deer Shaft	Monogram Mesa	Brasier Brothers	Norwood	Uranium, Vanadium
Diana	Bachelor Draw	E. J. Alongo	Box 234, Naturita	Uranium, Vanadium
Dolores and East Dolores	Atkinson Mesa	H. H. Kincaid	Box 243, Uravan	Uranium, Vanadium
Donald L	Long Park	Vanadium Corp. of America	Durango	Uranium, Vanadium
Donna K	Long Park	Henry Trujillo	Route 1, Olathe	Uranium, Vanadium
Dorothy	Wild Steer	Lloyd Rainwater	Box 13, Nucla	Uranium, Vanadium
Dorothy Jean	Long Park	Carl Tucker	Box 461, Grand Valley	Uranium, Vanadium
Double Jack	Long Park	Doublejack Mining Co.	Box 133, Nucla	Uranium, Vanadium
Duchess	Martin Mesa	Jim Killen	Box 405, Uravan	Uranium, Vanadium
Dusty	Long Park	Thomas Corp. of America	Durango	Uranium, Vanadium
Echo No. 6	Wedding Bell	Thomas Finch	Naturita	Uranium, Vanadium
Equinox	Dolores Rim	Rex Uranium Corp.	Box 1238, Farmington, New Mexico	Uranium, Vanadium
Evening Star No. 2	Lion Creek	Davis Brothers	Bedrock	Uranium, Vanadium
Fawn Springs Nos. 7 & 13	Bull Canyon	Virgil Allen	Montrose	Uranium, Vanadium
Fawn Springs Nos. 9, 11, 12, 18, 21	Bull Canyon	Oral Clark & Arthur D. Harris	Box 596, Nucla	Uranium, Vanadium

OPERATING MINES IN MONTROSE COUNTY (Continued)

Name of Mine	Location	Operator	P. O. Address	Product
Fawn Springs No. 10	Bull Canyon	Thomas Lynn	Box 141, Nucla	Uranium, Vanadium
Fawn Springs No. 15	Bull Canyon	Albert J. Harmon	Fruita	Uranium, Vanadium
Fire Bird	Long Park	Brickey & Alexander	Box 423, Uravan	Uranium, Vanadium
Firecracker	Long Park	Vanadium Corp. of America	Durango	Uranium, Vanadium
First National Bank	Long Park	Barnes Brothers	Box 156, Nucla	Uranium, Vanadium
Florence Nellie East	Long Park	Clarence Neilson & Assoc.	Box 875, Uravan	Uranium, Vanadium
Forty-five-Ninety	Eagle Basin	John Ages	Box 535, Uravan	Uranium, Vanadium
Government Block No. 6	Club Mesa	Mike Doyle	Box 433, Grand Junction	Uranium, Vanadium
Grass Roots	Uravan	Frank Stocklase	Box 406, Uravan	Uranium, Vanadium
Great Expectation Tunnel	Monogram	Climax Uranium Co.	Box 1901, Grand Junction	Uranium, Vanadium
Great Western	Long Park	Lark Washburn	Box 850, Uravan	Uranium, Vanadium
Ground Hog	Long Park	Brickey & Alexander	Box 423, Uravan	Uranium, Vanadium
Guaualcanal	Long Park	Verne Ray	Box 256, Uravan	Uranium, Vanadium
Happy Clay	Long Park	Robert Williams	Box 13, Uravan	Uranium, Vanadium
Hidden Basin	Long Park	Roy Franklin	Box 850, Uravan	Uranium, Vanadium
High Ball	Long Park	Vanadium Corp. of America	Durango	Uranium, Vanadium
Hobo	Bull Canyon	Ouray Uranium Co.	Box 992, Moab, Utah	Uranium, Vanadium
Horsemoon	Bull Canyon	Lee Reed	Naturita	Uranium, Vanadium
Horsehair	Bull Canyon	Herman Conrow	Box 257, Uravan	Uranium, Vanadium
Hot Shot	Wedding Bell	D. C. Jacobsen	Box 52, Naturita	Uranium, Vanadium
Hummer Group	Monogram Mesa	Carl Holder & Cliff Ream	Box 165, Dove Creek	Uranium, Vanadium
J. J. Mine	Monogram Mesa	Lowell Staats	Box 337, Nucla	Uranium, Vanadium
J. M. Mine	Club Mesa	Dale Sturdevant	Box 184, Naturita	Uranium, Vanadium
Jo Anne	Dolores Rim	John Morrill	Box 466, Uravan	Uranium, Vanadium
		Ben Zimmerman	2440 1/2 F. Road, Grand Junction	Uranium, Vanadium
Joe Dandy	Dolores Rim	Donald Young	Montrose	Uranium, Vanadium
Joker	Monogram Mesa	Gerald Patterson	Uravan	Uranium, Vanadium
L. P. Incline	Bull Canyon	D. C. McDougald, Jr.	Box 448, Moab, Utah	Uranium, Vanadium
		L. P. Development Co.	433 North 7th Ave., Grand Junction	Uranium, Vanadium
La Salle	Club Mesa	La Salle Mining Co.	Uravan	Uranium, Vanadium
Lark No. 8	Bull Canyon	North Standard Mining Co.	Box 605, Provo, Utah	Uranium, Vanadium
Little Alice	Wild Steer	Vanadium Corp. of America	Durango	Uranium, Vanadium
Little Basin	Spring Creek			
Little Dick	Mesa	Frank Stocklase	Box 400, Uravan	Uranium, Vanadium
Little Joe	Dolores Rim	D. E. Burbridge	Box 187, Nucla	Uranium, Vanadium
Loft Cabin	Bull Canyon	Great Northern Uranium Co.	3005 S. High St., Denver 10	Uranium, Vanadium
Lone Pine	Carpenter Ridge	Milton Castor	Box 284, Naturita	Uranium, Vanadium
		Willoughby Mining Co.	185 Sunset Hills, Grand Junction	Uranium, Vanadium
Long Park No. 1	Long Park	W. R. Pierce	Box 548, Uravan	Uranium, Vanadium
Long Park No. 4	Long Park	Russell E. Mayfield	Box 584, Nucla	Uranium, Vanadium
Long Park No. 6	Long Park	Frank Fedel	Uravan	Uranium, Vanadium
Long Park No. 9	Long Park	H. F. Gardner & Son	Uravan	Uranium, Vanadium
Long Park No. 10	Long Park	Jacob Ford	Naturita	Uranium, Vanadium
Long Park No. 12	Long Park	DeVar Shumway	215 Lands Down, Grand Junction	Uranium, Vanadium
Long Park No. 13	Long Park	Carl Kinsey	Box 186, Montrose	Uranium, Vanadium
Lucky Dog	Dolores Rim	Ennis Cole & Assoc.	Box 36, Uravan	Uranium, Vanadium
Margie C	Long Park	R. R. Wolf	Naturita	Uranium, Vanadium
Marjorie Ann	Lion Creek	Glenn Milligan	Box 804, Cortez	Uranium, Vanadium
Mary Ann	Monogram Mesa	Joe Skalla	Norwood	Uranium, Vanadium
Media Group	Long Park	J. W. Emmons	Box 161, Naturita	Uranium, Vanadium

Mesa	Bull Canyon	O. E. Smart	Box 64, Naturita	Uranium, Vanadium
Mill No. 1 Mine	Club Mesa	O'Bryant & Powell	Box 124, Uravan	Uranium, Vanadium
Mill No. 2 Mine	Club Mesa	Joseph Javernick	Box 484, Uravan	Uranium, Vanadium
Mineral Joe No. 1	Monogram Mesa	Climax Uranium Co.	Box 1901, Grand Junction	Uranium, Vanadium
Mineral Joe Incline	Monogram Mesa	Fred & Samuel Richards	Nucla	Uranium, Vanadium
Nos. 1 & 2	Monogram Mesa	Climax Uranium Co.	Box 1901, Grand Junction	Uranium, Vanadium
Mineral Park Nos. 4 & 5	Long Park	R. G. Simms	Box 662, Rifle	Uranium, Vanadium
Moonbeam	Little Gypsum			
Morning Star	Valley	O. E. Smart	Box 64, Naturita	Uranium, Vanadium
New Happy Incline	Long Park	Robert Williams	Box 13, Uravan	Uranium, Vanadium
North Hummer	Monogram Mesa	Lowell Staats	Box 337, Nucla	Uranium, Vanadium
Old Grandd	Bull Canyon	Glen Gardner	Naturita	Uranium, Vanadium
Opera Box Group	Monogram Mesa	C. N. Athey	Box 224, Naturita	Uranium, Vanadium
Outlet	Dolores Rim	Cecil Bunker	Box 27, Nucla	Uranium, Vanadium
Overlight	Carpenter Flats	Neptune Uranium Co.	Uravan	Uranium, Vanadium
Paddy No. 5	Monogram Rim	Lowell Staats	Box 337, Nucla	Uranium, Vanadium
Paradox D	Bull Canyon	William German	602 E. Center, Moab, Utah	Uranium, Vanadium
Par Day	Monogram Mesa	R. D. Johnson	Box 235, Nucla	Uranium, Vanadium
Peanut Incline Nos. 1 & 3	Martini Mesa	John Morrill	Box 466, Uravan	Uranium, Vanadium
	Bull Canyon	A. C. Rinderle	404 Sherman Drive, Grand Junction	Uranium, Vanadium
Peggy Nos. 1 & 2	Saucer Basin	Sidney J. Beers	Naturita	Uranium, Vanadium
Phonograph	Long Park	Lark Washburn	Box 850, Uravan	Uranium, Vanadium
Picket Corral	Bull Canyon	Jack Greager	Box 72, Norwood	Uranium, Vanadium
Piper No. 3	Carpenter Flats	Daniels Enterprises	Box 1698, Grand Junction	Uranium, Vanadium
Production	Long Park	Phillip Bunker	Nucla	Uranium, Vanadium
R. A. L. No. 1	Dolores Rim	Great Northern Uranium Co.	3005 S. High St., Denver 10	Uranium, Vanadium
Radium Cycle	Carpenter Ridge	Beehive Mining Co.	Box 381, Paradox	Uranium, Vanadium
Raja	Rock Creek	H. F. Burnette	Box 381, Paradox	Uranium, Vanadium
			207 Uranium Center, Grand Junction	
Rattlesnake	Eagle Basin	Kent Rawlings & Assoc.	Box 347, Naturita	Uranium, Vanadium
Raven	Little Gypsum	Forest Binder	3500 Main St., Durango	Uranium, Vanadium
Red Flat No. 6	Bull Canyon	Lee V. Flora	Uravan	Uranium, Vanadium
Red Rock No. 5	Martin Mesa	Glenn L. Zastrow & James M. Dodson	Box 1381, Grand Junction	Uranium, Vanadium
Red Sox	Dolores Bench	Vanadium Corp. of America	Durango	Uranium, Vanadium
Republican	Long Park	Vanadium Corp. of America	Durango	Uranium, Vanadium
Rimrock No. 3	Wedding Bell	Harold J. Price	Box 74, Nucla	Uranium, Vanadium
Rimrock No. 5	Wedding Bell	Francis C. Jones	Box 445, Blanding, Utah	Uranium, Vanadium
Rimrock Blues Nos. 3 & 5	Bull Canyon	Adolphus Moore	Box H, Naturita	Uranium, Vanadium
Rimrock Blues No. 6	Bull Canyon	Carleton F. Bishop	Box 206, Naturita	Uranium, Vanadium
St. Patrick	Long Park	Clarence L. Nielson	Box 875, Uravan	Uranium, Vanadium
St. Patrick Claims	Lion Creek	Davis Brothers	Bedrock	Uranium, Vanadium
Sam	Bull Canyon	Dale Sturdevant	Box 184, Naturita	Uranium, Vanadium
Sandy	Dolores Rim	Douglas Cleghorn	Box 502, Uravan	Uranium, Vanadium
September Morn	Wedding Bell	C. E. Albano	Box 529, Nucla	Uranium, Vanadium
Shamrock Group	Club Mesa	Frank Stocklase	Box 400, Uravan	Uranium, Vanadium
Sharkey	Long Park	William Barnett	Naturita	Uranium, Vanadium
Shattuck Denn Shaft	Club Mesa	Shattuck Denn Mining Corp.	Box 875, Uravan	Uranium, Vanadium
Sphinx	Long Park	Clarence L. Nielson	Box 875, Uravan	Uranium, Vanadium
Star No. 3 (North)	San Miguel Bench	Eugene Barnes	Box 235, Naturita	Uranium, Vanadium
Star No. 3 (South)	San Miguel Bench	DeVar Shumway	Box 235, Naturita	Uranium, Vanadium
			215 Lands Down, Grand Junction	

OPERATING MINES IN MONTROSE COUNTY (Continued)

Name of Mine	Location	Operator	P. O. Address	Product
Starlight No. 7	Bull Canyon	Adolphus Moore	Box H, Naturita	Uranium, Vanadium
Starlight No. 8	Bull Canyon	G. A. Estes	Box 95, Uravan	Uranium, Vanadium
Sunbeam	Long Park	London & Johnson	Box 275, Naturita	Uranium, Vanadium
Sunrise Nos. 3, 4, 5	Bull Canyon	Joseph Dowd	41 W. First, Moab, Utah	Uranium, Vanadium
T. N. T. No. 3	Long Park	Vanadium Corp. of America	Durango	Uranium, Vanadium
Tea Pot Dome	Bull Canyon	Joseph Cole	Box 274, Naturita	Uranium, Vanadium
Thunderbolt	La Sal Creek	Vanadium Corp. of America	Durango	Uranium, Vanadium
Town House	Monogram Mesa	Gardner & Wilson	Naturita	Uranium, Vanadium
Tramp No. 2	Dolores Rim	Ronald Hutton	Box 231, Uravan	Uranium, Vanadium
Triulation	Saucer Basin	Lark Washburn	Box 856, Uravan	Uranium, Vanadium
U. S. Grant	Long Park	Ray Shumway	Naturita	Uranium, Vanadium
Uncle Sam	Club Mesa	Martin Templeton	Box 103, Uravan	Uranium, Vanadium
Uranium Girl	Dolores Rim	Robert Carlston & Lloyd Holmes	Box 471, Uravan	Uranium, Vanadium
Ureka	La Sal Creek	Minnoc Co.	Box 15, Lawson	Uranium, Vanadium
Vaden View	Carpenter Ridge	Willoughby Mining Co.	185 Sunset Hills, Grand Junction	Uranium, Vanadium
Valley View	Wild Steer Canyon	Vanadium Corp. of America	Durango	Uranium, Vanadium
Vanadium King	Carpenter Ridge	Albert J. Harmon	Fruita	Uranium, Vanadium
Virgin	Long Park	Vanadium Corp. of America	Durango	Uranium, Vanadium
West Opera Box	Long Park	D. C. Dunker	Box 153, Nucla	Uranium, Vanadium
Whitney Shaft	Monogram Mesa	C. N. Athey	Box 224, Naturita	Uranium, Vanadium
Worcester Shaft	Long Park	DeVar Shumway	215 Lands Down, Grand Junction	Uranium, Vanadium
Yellow Bird	Atkinson Mesa	Worcester Mines	Box 844, Uravan	Uranium, Vanadium
	La Sal Creek Bench	Evert Hess	Box 1643, Grand Junction	Uranium, Vanadium

OPERATING MINES IN OURAY COUNTY

Camp Bird	Ouray	Camp Bird Limited	Ouray	Gold, Silver, Lead, Zinc, Copper
Edna	Ironton	Mrs. G. W. Ballard	8411 Stony Island Ave., Chicago	Gold, Silver, Lead, Zinc, Copper
Jomack	Brown Mountain	Elmer Nellson	Box 234, Ridgway	Gold, Silver, Lead
Little Balm of Gilead	Mother Cline Slide	Greek Rock Mining Co.	Box 47, Ouray	Gold, Silver, Lead
Mayflower Group	Ironton Park	Mayflower Mining Co.	Ouray	Silver, Lead, Zinc
Monarch	Poughkeepsie Gulch	Standard Uranium Corp.	Box 34, Ouray	Silver, Lead, Zinc
Mountain King	Ironton Park	Mayflower Mining Co.	Ouray	Silver, Lead, Zinc
Old Lout	Poughkeepsie Gulch	Standard Uranium Corp.	Box 34, Ouray	Silver, Lead, Zinc
Patsy - Helen	Brown Mountain	Island Empire Uranium Corp.	Cotorado Springs	Silver, Lead
Pony Express	Lake Lenore	Rolling 'J' Mining & Milling Co.	Ouray	Silver, Lead, Zinc
Rouville	Red Mountain	Rouville Mining Co.	Silverton	Silver, Lead, Zinc, Copper
Treasury Tunnel	Ouray	Idarado Mining Co.	Ouray	Gold, Silver, Lead, Zinc, Copper

OPERATING MINES IN PARK COUNTY

Big Four Kenosha Pass James E. Martin & Assoc. 4601 S. Washington, Englewood Uranium
 Boomer Badger Flats Mountain Dale Mining Co. 1205 La Paloma Way, Colorado Springs Beryl Gold, Silver, Lead, Zinc, Copper
 Buckskin Joe Buckskin Gulch Buckskin Joe Mines, Ltd. Alma Silver, Lead, Zinc, Copper
 Champagne North Mosquito Gulch Treasury Vault Uranium Co. 718 Symes Bldg., Denver 2 Gold, Silver, Lead, Zinc
 Happy Thought Badger Flats Happy Thought Mining Co. 201 Cypress, Colorado Springs Uranium
 Hill Top Horseshoe District Leadville Lead Corp. Box 92, Fairplay Silver, Lead, Zinc
 Red Cross Dump Buckskin Gulch Park Mining & Development Co. 744 Manitou Ave., Manitou Gold, Silver, Lead
 W. G. Mine Horseshoe District W. G. Mines Assn. Alma Silver, Lead

OPERATING MINES IN PITKIN COUNTY

Chance Durant Tunnel Aspen Thomas N. Tennant Aspen Tourist
 Burrell No. 1 Uranium Peak McAlister Fuel Co. McAlister, Okla. Uranium

OPERATING MINES IN RIO BLANCO COUNTY

Chandler Tunnel Summitville General Minerals Corp. Box 446, Grand Junction Copper
 Mammoth Platoro Robert W. Hume Platoro Silver, Lead

OPERATING MINES IN RIO GRANDE COUNTY

Copper King McCoy McFarland & Hullinger Box 238, Toole, Utah Copper

OPERATING MINES IN SAGUACHE COUNTY

Antoro Bonanza Superior Mines Corp. Box 127, Salida Lead, Zinc
 Cliff Bonanza Tri-Em Corp. 524 Cooper Bldg., Denver 2 Silver, Lead, Zinc
 D & J (Boneto) Marshall Pass Burrell Jewett 4th & Santa Fe, Pueblo Uranium
 Jenny Bonanza Buster Johnson Bonanza Silver, Lead, Zinc
 Jupiter Bonanza Tri-Em Corp. 524 Cooper Bldg., Denver 2 Uranium
 Lookout Marshall Pass Gibraltar Minerals Co. Box 114, Gunnison Uranium, Vanadium
 Los Ochos Cochetopa Creek Gunnison Mining Co. Box 539, Gunnison Lead, Zinc, Copper
 Paragon Bonanza Superior Mines Corp. Box 127, Salida Uranium
 Rainbow End Uranium Co. Villa Grove Rainbow End Uranium Co. Morfat Silver, Lead, Zinc
 Rawley No. 2 Bonanza William Costello Villa Grove, Bonanza Route Silver, Lead, Zinc
 Rawley Nos. 3 & 12 Bonanza Superior Mines Corp. Box 127, Salida Lead, Zinc, Copper
 Wannamaker Wannamaker 66 miles S.W. of Saguache Wannamaker Mining & Milling Co. Lead, Zinc
 Warwick Bonanza Warwick Mines, Inc. Villa Grove, Bonanza Route Silver, Lead, Zinc
 Wheel of Fortune Bonanza Bennett Mines Co. 524 Cooper Bldg., Denver 2 Silver, Lead, Zinc

OPERATING MINES IN SAN JUAN COUNTY

Name of Mine	Location	Operator	P. O. Address	Product
Auburn	Eureka	Joseph F. Gambill & Wayne Walling	Box 233, Silverton	Gold, Silver, Lead, Zinc
Gary Owen	Cunningham Gulch	Marcy-Shenandoah Exploration Co.	Silverton	Gold, Silver, Lead, Zinc, Copper
Graysill Group Hematite	Hermosa Creek Cunningham Gulch	Vanadium Corp. of America	Durango	Vanadium
Highland Mary	Cunningham Gulch	Argyle Mining & Milling Co.	Silverton	Gold, Silver, Lead, Zinc
Kittimac	Minnie Gulch	Robert B. Daniel	Grand Junction	Gold, Silver, Lead, Zinc, Copper
Lark	Prospector's Gulch	Walter W. Bentley	Box 541, Silverton	Gold, Silver, Lead, Zinc, Copper
Little Dora	Silverton	Ruther Mining Co.	Box 442, Silverton	Gold, Silver, Lead, Zinc
Longfellow	Red Mountain Pass	Giant Resources, Inc.	Box 1451, Grand Junction	Gold, Silver, Lead, Zinc, Copper
Oceola	Cunningham Gulch	Standard Mining Corp.	Box 141, Ouray	Gold, Silver, Lead, Zinc, Copper
Pride of the West	Cunningham Gulch	Argyle Mining & Milling Co.	Silverton	Gold, Silver, Lead, Zinc
W. W. Mine	Ruby Creek	Pride Lease	Silverton	Gold, Silver, Lead, Zinc
		Walling & Waggoner	Box 381, Silverton	Gold, Silver, Lead, Zinc

OPERATING MINES IN SAN MIGUEL COUNTY

Andrus	Black Bear Basin	East Ridge Co.	Ouray	Gold, Silver, Lead, Zinc, Copper
April No. 1 Bachelor	Slick Rock Bachelor Draw	J. W. McCormick Mining Co. Four Corners Exploration Co.	Egnar 210 Petroleum Bldg., Grand Junction	Uranium, Vanadium
Badger	Ophir	Silver Bell Mines, Inc.	Ophir	Uranium, Vanadium, Gold, Silver, Lead, Zinc, Copper
Bean Patch Bear Creek Bell Claim	Slick Rock Bear Creek Big Gypsum Valley	W. J. Burwell Vanadium Corp. of America	Egnar Durango	Uranium, Vanadium
Black Jack Brighton	Slick Rock Summit Canyon Slick Rock	Page Mining Co. Burwell Mining Co. Robert Baird Dulaney Mining Co.	Box 302, Crested Butte Egnar Box 349, Dove Creek First Nat'l Bank Bldg., Grand Junction	Uranium, Vanadium Uranium, Vanadium Uranium, Vanadium
Bull Moose Claim Bull Snake	Bishop Canyon Horseshoe Bend	T. E. & S. R. Thompson Uranium Producers, Inc.	Box 197, Dove Creek 1536 Welton St., Denver 2	Uranium, Vanadium Uranium, Vanadium

Burro Nos. 3, 5, 7	Albert Fish & Assoc.	Box 536, Telluride	Uranium, Vanadium
Carbenero	Silver Bell Mines, Inc.	Ophir	Gold, Silver, Lead, Zinc, Copper
Charles T. Group	Western Mine Supply Co.	Monticello, Utah	Uranium, Vanadium
Cougar Claim	Richard F. Smith	Egnar	Uranium, Vanadium
Cougar Group	Henry Holling & Assoc.	Egnar	Uranium, Vanadium
Cow Girl	Ortmayer Mining Co.	Box 1846, Grand Junction	Uranium, Vanadium
Dermo	Boyles Brothers Drilling Co.	1321 S. Main, Salt Lake City, Utah	Uranium, Vanadium
Dolores	Baird & Snyder Mining Co.	Box 231, Dove Creek	Uranium, Vanadium
Early Morn	Woodrow Gripe	Box 225, Naturita	Uranium, Vanadium
Falcon No. 1	Walter Kingery	Box 781, Cortez	Uranium, Vanadium
Fall Creek Group	Vanadium Corp. of America	Durango	Vanadium
Fire Fly	Willoughby Mining Co.	185 Sunset Hills, Grand Junction	Uranium, Vanadium
Full Moon Nos. 1, 4, 7	E. J. Johannsen	Box 117, Nucla	Uranium, Vanadium
Gold King	Summit Leasing Co.	Box 163, Ouray	Uranium, Vanadium
Gopher	Fred Morlang & Tom Wolverton	Box 101, Olathe	Gold, Silver, Lead
Grants Claim (Upper Group)	R. L. Duncan	Box 92, Dove Creek	Uranium, Vanadium
Grassy Flats	Ute Uranium Co.	Box 188, Cripple Creek	Uranium, Vanadium
Groundhog	Carl Kinsey	Box 186, Montrose	Uranium, Vanadium
Groundhog Dump	Charles Williams	Naturita	Uranium, Vanadium
Hangover	Dale Dillon	Box 1392, Cortez	Uranium, Vanadium
Happy Jack	McIntyre Canyon	Box 1054, Moab, Utah	Uranium, Vanadium
Hawk No. 1	Western Exploration Co.	Egnar	Uranium, Vanadium
Herbert Claim	John W. Hargrove	Cortez	Uranium, Vanadium
Horseshoe No. 3	C. F. Snider & Son	Dove Creek	Uranium, Vanadium
Horseshoe Nos. 5 & 7	William Barlow	Box 3, Dove Creek	Uranium, Vanadium
Horseshoe No. 6	Jack Milling	Egnar	Uranium, Vanadium
Inspiration	Little Gypsum		Uranium, Vanadium
Iron Springs Placer	Old Ophir	Box 807, Moab, Utah	Uranium, Vanadium
Jack Knife No. 1	Ace Mining Co.	2001 Lynch St., East St. Louis, Ill.	Bog Iron
Jack Knife No. 2	C. K. Robinson & Co.		Uranium, Vanadium
King No. 2	Fred Morlang & Tom Wolverton	Box 101, Olathe	Uranium, Vanadium
King No. 4	Carl Eric Benson	Nucla	Uranium, Vanadium
Laurelia (Hangover No. 2)	Skidmore Mining Co.	Dolores	Uranium, Vanadium
Lee-'C'	Jack Williams & Assoc.	Box 42, Egnar	Uranium, Vanadium
	Mike Doyle	Box 1433, Grand Junction	Uranium, Vanadium
	Dulaney Mining Co.	First Nat'l Bank Bldg., Grand Junction	Uranium, Vanadium
Little Max	Harry Coulson	Cortez	Uranium, Vanadium
Long Peak No. 1	Roy Kamholz	Egnar	Uranium, Vanadium
Long Ridge	Big Gypsum		Uranium, Vanadium
Lookout	Hamn Canyon	Nucla	Uranium, Vanadium
Lost Claim	Little Gypsum	Green River, Utah	Uranium, Vanadium
Lucky B	Slick Rock	Redvale	Uranium, Vanadium
Mainstreet	Valley	Monticello, Utah	Uranium, Vanadium
May No. 2	Slick Rock	Box 397, Nucla	Uranium, Vanadium
Michael Bray	Slick Rock	Box 1846, Grand Junction	Uranium, Vanadium
Moqua Jug	Spud Patch	Egnar	Uranium, Vanadium
Mottley Lease	Slick Rock	Box 117, Nucla	Uranium, Vanadium
		Box 365, Dove Creek	Uranium, Vanadium

OPERATING MINES IN SAN MIGUEL COUNTY (Continued)

Name of Mine	Location	Operator	P. O. Address	Product
Mystery	Mule Shoe	Dan Closser	Box 86, Montrose	Uranium, Vanadium
Norma	Spud Patch	Harry Coulson	Cortez	Uranium, Vanadium
Norma Jean No. 2	Spud Patch	Edgar Goodard	Box 1487, Cortez	Uranium, Vanadium
Norther No. 6	Horse Range	Sam Johnson	Slick Rock	Uranium, Vanadium
Owenby Group	Slick Rock	Dulaney Mining Co.	First Nat'l Bank Bldg., Grand Junction	Uranium, Vanadium
Pandora	Pandora	Idarado Mining Co.	Telluride	Gold, Silver, Lead, Zinc, Copper
Penju	Big Gypsum Valley	Huff Mining Co.	1020 Bookeliff, Grand Junction	Uranium, Vanadium
Pinto	Horse Range	Pretty Blue Mining Corp.	Box 97, Placerville	Uranium, Vanadium
Pitch Fork No. 1	Mesa Valley	Clarence Holland	Egnar	Uranium, Vanadium
Pond	Upper Gypsum Valley	Hardin & Plantz	Redvale	Uranium, Vanadium
Powder Drift (Parrot No. 2)	Mule Shoe	James Pace	Box 518, Fruita	Uranium, Vanadium
Pretty Blue	San Miguel Canyon	Pretty Blue Mining Corp.	Box 97, Placerville	Uranium, Vanadium
Radium No. 4	Slick Rock	Victor Porter	Box 143, Dove Creek	Uranium, Vanadium
Radium Group	Slick Rock	Dulaney Mining Co.	First Nat'l Bank Bldg., Grand Junction	Uranium, Vanadium
Rambler (Cliff Dweller)	Big Gypsum Valley	U-Tah-See Mining Syndicate	Box 1931, Grand Junction	Uranium, Vanadium
Roberts, Lee	McIntyre Canyon	Western Exploration Co.	Box 1054, Moab, Utah	Uranium, Vanadium
Sage No. 11	Bishop Canyon	Uranium Shares, Inc.	Cripple Creek	Uranium, Vanadium
Silver Pick	Bear Creek	Mt. Wilson Mining Co.	Box 398, Telluride	Gold, Silver, Lead, Zinc
Strawberry Roan	Bishop Canyon	Vanadium Corp. of America	Durango	Uranium, Vanadium
Summit	Slick Rock	A. H. Canfield	Dove Creek	Uranium, Vanadium
Sunup	San Miguel Canyon	Pretty Blue Mining Corp.	Box 97, Placerville	Uranium, Vanadium
Tailholt	Slick Rock	Merle Lloyd	Egnar	Uranium, Vanadium
Tiny	Big Gypsum Valley	Shaw & Wolney	Box 62, Naturita	Uranium, Vanadium
Unitah	Slick Rock	Howard Holland	Dove Creek	Uranium, Vanadium
Vanadium Queen	McIntyre Canyon	Richard Dillon	Box 219, Norwood	Uranium, Vanadium
Veta Mad & Veta Glad	Slick Rock	York Minerals, Inc.	Box 784, Cortez	Uranium, Vanadium
Wally No. 1	Mule Shoe	Bertoch Mines	Box 65, Egnar	Uranium, Vanadium
Yellow Bird	McIntyre Canyon	Trans-World Mining Corp.	311 Boston Bldg., Denver 2	Uranium, Vanadium

OPERATING MINES IN SUMMIT COUNTY

Big Four	Green Mountain Dam	Silver Bull Mining Co.	Breckenridge	Silver, Lead, Zinc
Blue Flag	Breckenridge	M. F. Ayler & Martin Legere	323 23rd St., Golden	Lead, Zinc
Blue Star	Dillon	Roberts & Associates	639 S. Spring St., Los Angeles 14, Calif.	Fluorspar
Chataqua	Montezuma	Chataqua Mine & Leasing Co.	Frisco	Silver, Lead, Zinc
Meteor Tunnel	Montezuma	Burke-Martin Mining Co.	Montezuma	Silver, Lead, Zinc
Minnie	Breckenridge	W. L. Davenport	Breckenridge	Silver, Lead, Zinc
New York	Breckenridge	Knight Mining Co.	Box 335, Breckenridge	Gold, Silver, Lead, Zinc

Shoe Basin Marlon Mining Co. First Nat'l Bank Bldg.,
 Denver 2 Gold, Silver, Lead, Zinc
 Silver Wing Montezuma Burke-Martin Mining Co. Montezuma Gold, Silver, Lead, Zinc
 Wellington Breckenridge Marvin Burger & Harold Horn Breckenridge Silver, Lead, Zinc

OPERATING MINES IN TELLER COUNTY

Ajax Battle Mountain Golden Cycle Corp. Cripple Creek Gold
 Cresson Raven Hill Cresson Consolidated Gold Mining & Milling Co. Cripple Creek Gold
 Deadwood Cripple Creek Deadwood Leasing Co. Cripple Creek Gold
 El Paso Cripple Creek Beacon Hill Mines, Inc. Box 205, Cripple Creek Gold
 Gold King Poverty Gulch Anderson & Co. Cripple Creek Gold
 Grace Greenwood Gold Hill Johnson & Peiffer Cripple Creek Gold
 International Gold Hill Deepke Mining Co. 2431 N. Nevada, Colorado Springs Gold
 Mollie Kathleen Tenderfoot Hill O. J. Miller Cripple Creek Tourist
 Strong Victor Front Range Mines, Inc. 405 Burns Vault Bldg., Denver 2 Gold
 Vindicator Bull Hill The United Gold Mines Cripple Creek Gold

OPERATING QUARRIES IN BOULDER COUNTY

Name of Quarry	Location	Operator	P. O. Address	Product
Loukonen Brothers	Lyons	Loukonen Brothers	Lyons	Stone
Loukonen Brothers Quarry	Lyons	Stockton & Perkins	737 Evergreen Ave., Boulder	Stone
Nolan	Beach Hill	Harvey Readinger	Lyons	Stone
United Building Stone	Beach Hill	United Building Stone Co., Inc.	762 Alpine St., Boulder	Stone

OPERATING QUARRIES IN CHAFFEE COUNTY

Crystal Placer	Ute Trail	Colorado Granite Co.	Salida	Granite
Homestake	Ute Trail	M & S, Inc.	Box 671, Salida	Feldspar
Monarch Lime Quarry	Monarch Pass	The Colorado Fuel & Iron Corp.	Pueblo	Limestone
Silco Mining Co.	Salida	John L. Barnes	Box 108, Salida	Crushed Rock

OPERATING QUARRIES IN CUSTER COUNTY

Rosita Rosita C. J. Barnhisel Construction Co. Antonito Perlite

OPERATING QUARRIES IN DOUGLAS COUNTY

Helmer Littleton John Fox 1452 Benton St., Denver 14 Limestone

OPERATING QUARRIES IN EAGLE COUNTY

Colo-Tex Stone Co. No. 1	Marble	Colo-Tex Stone Co.	Box 401, Glenwood Springs	Stone
Dotsero	Dotsero	Leslie & Lloyd Brudigan	Box 390, Glenwood Springs	Pumice
Roaring Fork	Glenwood Springs	E. H. Bone	Route 1, Carbondale	Pumice

Name of Quarry	Location	Operator	P. O. Address	Product
Castle	Colorado Springs	Castle Concrete Co.	Box 2462, Colorado Springs	Limestone
Lennox Breed	Colorado Springs	Colorado Materials Co.	Box 183, Colorado Springs	Concrete Aggregate
Rampart Range Quarry	Rampart Range			
	Road	Vetter & Sons	Cripple Creek	Limestone

OPERATING QUARRIES IN FREMONT COUNTY

Burnito	Canon City	Ray Sturbaum & Son	Canon City	Silica Rock
Calcite	Howard	Colorado Limestone Co.	Box 8, Howard	Limestone
Canon Dolomite	Canon City	The Colorado Fuel & Iron Corp.	Pueblo	Dolomite
Coaldale Gypsum	Coaldale	Fibreboard Paper Products Corp.		
Cowan Travertine	Canon City	Cowan Brothers	Box 269, Florence	Gypsum
English	English Siding	Colonna & Co. of Colo., Inc.	227 Main St., Canon City	Travertine
Horney Ganister	Temple		Box 387, Canon City	Marble
	Mountain	Ralph Pierce	214 W. New York St., Canon City	Silica Rock
Portland	Portland	Ideal Cement Co.	Box 231, Florence	Shale & Limestone
Taylor Gulch Quarry	Taylor Gulch	Frank H. Norberg Co.	703 Guaranty Bank Bldg., Denver 2	Limestone

OPERATING QUARRIES IN GARFIELD COUNTY

Glenwood Springs Lime Quarry	Glenwood Springs			
Union Oil Shale Quarry	Grand Valley	Isbell Construction Co.	Reno, Nevada	Limestone
		Frank H. Norberg Co.	703 Guaranty Bank Bldg., Denver 2	Oil Shale

OPERATING QUARRIES IN JEFFERSON COUNTY

Table Mountain	Table Mountain	Crushed Stone Co.	1010 Russell Blvd., Denver 16	Stone
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OPERATING QUARRIES IN LARIMER COUNTY

Boettcher Quarry & Crushing Plant	La Porte	Ideal Cement Co.	Box 579, Fort Collins	Limestone
Jacobson-Lyons Stone Co., Inc.	Lyons	Jacobson-Lyons Stone Co., Inc.	Lyons	Sandstone
Loveland	Loveland	U. S. Gypsum Co.	Estes Park Route, Loveland	Gypsum
Online	Beach Hill	Arthur Online	Lyons	Stone
Parker	Lyons	Summers Stone Co.	Lyons	Stone
Rex	Owl Canyon	Frank H. Norberg Co.	703 Guaranty Bank Bldg., Denver 2	Limestone
Stewart	Lyons	W. D. Stewart Ledge Stone Co.	Route 1, Box 105-B, Longmont	Stone

OPERATING QUARRIES IN ROUTT COUNTY

McCoy Cinder Pit	McCoy	McCoy Aggregate Co.	McCoy	Pumice
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OPERATING QUARRIES IN SAGUACHE COUNTY

Villa Grove Turquoise Lode	Villa Grove	Turquoise Co.	Box 171, Villa Grove	Turquoise
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OPERATING QUARRIES IN TELLER COUNTY
 Black Cloud Divide Carl Quist & Herbert Crisler Lake George Feldspar, Quartz
 Plkes Peak N.W. Corner Teller County Alfred H. Haare Box 2323, Colorado Springs Monumental Stone

OPERATING PEAT BOGS IN BOULDER COUNTY
 Name of Bog Location Operator P. O. Address Product
 Green Thumb Nederland Allen Trucking Co. 520 Pearl St., Boulder Peat
 Mud Lake Nederland A. A. Peat Co. 510 Maxwell St., Boulder Peat

OPERATING PEAT BOGS IN GILPIN COUNTY
 Colorado Peat, Inc. Black Hawk Colorado Peat, Inc. Route 2, Box 79, Golden Peat
 Rudolph Peat Bog Black Hawk Gus Rudolph Black Hawk Peat

OPERATING PEAT BOGS IN LAKE COUNTY
 Mt. Elbert Peat Moss Hayden Ranch Mt. Elbert Peat Moss Co., Inc. Box 969, Leadville Peat

OPERATING PEAT BOGS IN TELLER COUNTY
 Alpen Meadow Bog Lazy S. Ranch Alpen Meadows, Inc. Box 1074, Colorado Springs Peat

OPERATING CLAY MINES AND PITS IN BOULDER COUNTY
 Name of Mine Location Operator P. O. Address Product
 Spicer Rocky Flats Colorado Brick Co. Box 727, Longmont Clay

OPERATING CLAY MINES AND PITS IN DOUGLAS COUNTY
 Helmer Littleton John Fox 1452 Benton St., Denver 14 Clay
 Hogback Nos. 2 & 3 Waterton Robinson Brick & Tile Co. 500 S. Santa Fe Drive, Denver 19 Clay
 Ringenberg Castle Rock The Denver Brick & Pipe Co. 4501 Fox St., Denver 16 Clay
 Stevens Ranch Castle Rock Stroud Whisenhunt Castle Rock Clay

OPERATING CLAY MINES AND PITS IN FREMONT COUNTY
 Flint No. 1 Canon City Laclede-Christy Co. Canon City Flint Clay
 Freeman No. 3 Red Creek Edward Freeman Stone City Clay

OPERATING CLAY MINES AND PITS IN JEFFERSON COUNTY
 Bennett Golden Garney Bennett Box 184, Route 1, Golden Clay
 Caldwell No. 4 Plainview The Denver Brick & Pipe Co. 4501 Fox St., Denver 16 Clay
 Church (Strainland No. 2) Rocky Flats Wesley D. Conda Route 1, Boulder Clay
 Dry Creek Dry Creek The Denver Brick & Pipe Co. 4501 Fox St., Denver 16 Clay
 Green Mountain Golden George W. Parfet Estate, Inc. Box 226, Golden Clay
 Harvey Rocky Flats John L. Harvey 2970 Zenobia St., Denver 12 Clay
 Harvey Red Pit Plainview John L. Harvey 2970 Zenobia St., Denver 12 Red Clay
 Larlat Waterton Robinson Brick & Tile Co. 500 S. Santa Fe Drive, Denver 23 Clay

OPERATING CLAY MINES AND PITS IN JEFFERSON COUNTY (Continued)

Name of Mine	Location	Operator	P.O. Address	Product
Lindsay Buff Pit (Lakewood)	Golden	Lakewood Brick & Tile Co.	1325 Jay St., Denver 15	Clay
Lindsay Red Pit (Leyden)	Golden	Lakewood Brick & Tile Co.	1325 Jay St., Denver 15	Clay
Mt. Caribon Clay Pit (Morrison)	Morrison	Duane J. Bruno	929 E. Ellsworth, Denver 9	Clay
North Chieftain	Denver	Robinson Brick & Tile Co.	500 S. Santa Fe Drive, Denver 23	Clay
North Golden	Golden	The Denver Fire Clay Co.	3033 Blake St., Denver 5	Clay
Pit No. 1	Plainview	Wheatridge Excavating Co.	6820 W. 68th St., Arvada	Clay
Plastic Sliding Clay Mine	Golden	Denver Terra Cotta Co.	Box 215, Arvada	Plastic Clay
Rockwell	Golden	George W. Parfet Estate, Inc.	Box 226, Golden	Clay
Ruby	Golden	H. M. Rubey Clay Co.	Box 226, Golden	Clay
South Leyden	Golden	G. C. Bennetts	Box 390, Route 1, Golden	Clay
State	Marshall	Wesley D. Conda	Route 1, Boulder	Clay
Strainland No. 1	Golden	The Denver Brick & Pipe Co.	4501 Fox St., Denver 16	Shale
Two Brothers	Golden	The Denver Fire Clay Co.	3033 Blake St., Denver 5	Clay

OPERATING CLAY MINES AND PITS IN LAS ANIMAS COUNTY

Santa Fe	Starkville	Scott-Ruiz Coal Co.	Starkville	Clay
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OPERATING CLAY MINES AND PITS IN PUEBLO COUNTY

Chamblin	Capers Spur	The Standard Fire Brick Co.	24th & Albany Sts., Pueblo	Clay
Meadow Mine No. 5	Stone City	Pueblo Clay Products Co.	Box 1657, Pueblo	Clay
Rock Creek	Rock Creek	Freeman Fire Brick Co.	Box 150, Canon City	Clay
Stone City Nos. 1, 2, 5, 6	Stone City	General Refractories Co.	Box 192, Pueblo	Clay

OPERATING MILLS, PLANTS AND SMELTERS IN ADAMS COUNTY

Name of Mill or Plant	Location	Operator	P.O. Address	Product
North Plant	Denver	Cooley Gravel Co.	6101 Lowell Blvd., Denver 21	Sand, Gravel
Plant Nos. 8 & 10	Denver	Brannan Sand & Gravel Co.	4800 Brighton Blvd., Denver 16	Sand, Gravel

OPERATING MILLS, PLANTS AND SMELTERS IN ARAPAHOE COUNTY

South Plant	Englewood	Cooley Gravel Co.	6101 Lowell Blvd., Denver 21	Sand, Gravel
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OPERATING MILLS, PLANTS AND SMELTERS IN BOULDER COUNTY

Burlington Mill	Valmont	General Chemical Division, Allied Chemical & Dye Corp.	Box 228, Boulder	Fluorspar
Johnson Bros. & Prime Mill	Nederland	Johnson Bros & Prime	Nederland	Ferberite, Tungsten
Marion	Sugar Loaf Rd.	Wah Chang Corp.	Box 441, Boulder	Thorium
Portable Plant	Hygiene	Sterling Contracting Co.	Box 759, Fort Collins	Surfacing, Ballast
Wano Mill	Jamestown	Ozark-Mahoning Co.	Jamestown	Fluorspar
Wolf Tongue Mill	Nederland	Cold Spring Tungsten, Inc.	Nederland	Ferberite

OPERATING MILLS, PLANTS AND SMELTERS IN CHAFFEE COUNTY

Monarch Crushing Plant	Monarch Pass	The Colorado Fuel & Iron Corp.	Box 489, Salida	Limestone
Western Feldspar	Ute Trail	Western Feldspar Milling Co.	Box 671, Salida	Feldspar

OPERATING MILLS, PLANTS AND SMELTERS IN CLEAR CREEK COUNTY

Burley Mill Silver Plume Lisbon Valley Uranium Corp. 501 Kittredge Bldg.,
 Denver 2 Silver, Lead, Zinc

Commonwealth (Lupton
 Mill) Georgetown British-Western-American
 Uranium Corp. Georgetown Gold, Silver, Lead,
 Zinc

Dixie Mill Idaho Springs LeRoy Giles Co. Box 727, Idaho Springs Gold, Silver, Lead
 Front Range Mill Dumont Front Range Mines, Inc. 405 Burns Vault Bldg.,
 Denver 2 Gold, Silver, Lead

Lucky Seven Mill Freeland Gulch Lucky Seven Mining Corp. Box 882, Idaho Springs Gold, Silver, Lead
 Silver Spruce Mill Idaho Springs Michigan Chemical Corp. Box 481, Golden Rare Earth, Lead,
 Copper

Thunderbird Concentrator
 (Black Eagle) Idaho Springs Thunderbird Development, Inc. 1528 Colorado Blvd.,
 Idaho Springs Lead, Zinc

OPERATING MILLS, PLANTS AND SMELTERS IN COSTILLA COUNTY

Mesita Hill Quarry
 & Plant Mesita Colorado Aggregate Co., Inc. Mesita Volcanic Scoria

OPERATING MILLS, PLANTS AND SMELTERS IN CUSTER COUNTY

Bassick Mill Querida Reynolds Mineral Corp. Room 222, 818 17th St.,
 Denver 2 Gold, Silver

OPERATING MILLS, PLANTS AND SMELTERS IN DENVER COUNTY

Consolidated Feldspar
 Dept. Denver International Minerals &
 Chemical Corp. 1333 W. Maple Ave.,
 Denver 19 Feldspar

Denver Works Denver General Chemical Division,
 Allied Chemical & Dye Corp. 1271 W. Bayaud Ave.,
 Denver 23 Sulphuric Acid

Globe Plant Globeville American Smelting & Refining
 Co. 803 First Nat'l Bank Bldg.,
 Denver 2 Cadmium

OPERATING MILLS, PLANTS AND SMELTERS IN DOLORES COUNTY

Rico Argentine Mill Rico Rico Argentine Mining Co. Rico Silver, Lead, Zinc
 Rico Sulphuric Acid Plant Rico Rico Argentine Mining Co. Rico Sulphuric Acid

OPERATING MILLS, PLANTS AND SMELTERS IN EAGLE COUNTY

Eagle Mill Gilman The New Jersey Zinc Company Gilman Lead, Zinc

OPERATING MILLS, PLANTS AND SMELTERS IN FREMONT COUNTY

Empire Zinc Plant Canon City The New Jersey Zinc Company Canon City Zinc
 Florence Mill Florence Missouri Metal Reduction Co. Florence Thorium
 Portland Cement Plant Canon City Ideal Cement Co. Box 231, Florence Cement

Name of Mill or Plant	Location	Operator	P.O. Address	Product
Oil Shale Plant	Rifle	U. S. Bureau of Mines	Rifle	Maintenance
Rifle Plant	Rifle	Catalytic Construction Co.	Rifle	Construction
Rifle Plant	Rifle	Union Carbide Nuclear Co.	Rifle	Uranium, Vanadium
Union Oil Shale Plant	Grand Valley	Isbell Construction Co.	Grand Valley	Oil Shale
OPERATING MILLS, PLANTS AND SMELTERS IN GILPIN COUNTY				
Cherokee Mill (Gold Ridge)	Lake Gulch	Cherokee Uranium Mining Co.	Central City	Silver, Lead, Zinc
Glory Hole Mill	Central City	Glory Hole, Inc.	Central City	Gold, Silver, Lead
Golden Gilpin Mill	Black Hawk	Royal Mining & Milling Co.	Box 571, Loveland	Mica, Gold, Silver
Nielson No. 2 Plant	East Portal	Nielson, Inc.	Box 468, Lovelores	Sand, Gravel
OPERATING MILLS, PLANTS AND SMELTERS IN GUNNISON COUNTY				
Atlas Mill	Crested Butte	Redwell Basin Ventures	Box G, Crested Butte	Gold, Silver, Lead, Zinc, Copper
Gunnison Mining Co. Mill	Gunnison	Gunnison Mining Co.	Gunnison	Construction
Keystone Mill	Crested Butte	American Smelting & Refining Co.	Crested Butte	Gold, Silver, Lead, Zinc, Copper
OPERATING MILLS, PLANTS AND SMELTERS IN JACKSON COUNTY				
Northgate Mill	Northgate	Ozark-Mahoning Co.	Cowdrey	Fluorspar
OPERATING MILLS, PLANTS AND SMELTERS IN JEFFERSON COUNTY				
Beryl Ores Co.	Arvada	Beryl Ores Co.	Box 105, Route 1, Arvada	Beryl
Brannan Sand & Gravel Co.	Wheatridge	Brannan Sand & Gravel Co.	4800 Brighton Blvd., Denver 16	Sand, Gravel
Rio Grande Gravel Co.	Wheatridge	Rio Grande Gravel Co.	123 Santa Fe Drive, Denver 19	Sand, Gravel
OPERATING MILLS, PLANTS AND SMELTERS IN LAKE COUNTY				
Arkansas Valley Plant	Leadville	American Smelting & Refining Co.	Leadville	Gold, Silver, Lead, Zinc
Climax By-Products Plant	Climax	J. A. Parks Machinery Co.	Union Depot, Pueblo	Construction
Climax Mill	Climax	Climax Molybdenum Co.	Climax	Molybdenum
Climax Sand & Gravel Plant	Climax	Lee Ryan & Son	Box 378, Climax	Sand, Gravel
Resurrection Mill	California	Guleh Resurrection Mining Co.	Box 936, Leadville	Gold, Silver, Lead, Zinc
Western Hills Mill	Stumptown	Cadwell Mining Co.	Box 885, Leadville	Gold, Silver, Lead, Zinc
OPERATING MILLS, PLANTS AND SMELTERS IN LA PLATA COUNTY				
Vanadium Corporation of America (Durango Plant)	Durango	Vanadium Corporation of America	Durango	Uranium, Vanadium

OPERATING MILLS, PLANTS AND SMELTERS IN LARIMER COUNTY

Boettcher Plant La Porte Box 579, Fort Collins Cement
 Sterling Sand & Gravel Co. Fort Collins Sterling Sand & Gravel Co. Box 759, Fort Collins Sand, Gravel

OPERATING MILLS, PLANTS AND SMELTERS IN MESA COUNTY

Atomic Energy Commission United States Atomic Energy Commission Grand Junction Uranium Development
 Climax Uranium Mill Grand Junction Climax Uranium Co. Box 1901, Grand Junction Uranium, Vanadium
 Whitewater Sand & Gravel Co. Whitewater Whitewater Sand & Gravel Co. Box 1751, Grand Junction Sand, Gravel

OPERATING MILLS, PLANTS AND SMELTERS IN MINERAL COUNTY

Creede (Emperius) Mill Creede Emperius Mining Co. Creede Lead, Zinc

OPERATING MILLS, PLANTS AND SMELTERS IN MOFFAT COUNTY

Trace Elements Mill Maybell Trace Elements Co. Maybell Uranium, Vanadium

OPERATING MILLS, PLANTS AND SMELTERS IN MONTROSE COUNTY

Union Carbide Nuclear Co. (Slick Rock Plant) Slick Rock Union Carbide Nuclear Co. Grand Junction Uranium, Vanadium
 Union Carbide Nuclear Co. (Uravan Plant) Uravan Union Carbide Nuclear Co. Uravan Uranium, Vanadium
 Vanadium Corporation of America (Naturita Plant) Naturita Vanadium Corp. of America Naturita Uranium, Vanadium

OPERATING MILLS, PLANTS AND SMELTERS IN OURAY COUNTY

Rolling J Mill Ouray Roland N. Jahnke Ouray Gold, Silver, Lead

OPERATING MILLS, PLANTS AND SMELTERS IN PARK COUNTY

American Mill Mosquito Gulch South Park Milling Co. Alma Gold, Silver, Lead, Zinc

OPERATING MILLS, PLANTS AND SMELTERS IN PUEBLO COUNTY

Mica Grinding Plant Pueblo International Minerals & Chemical Co. Pueblo Mica

OPERATING MILLS, PLANTS AND SMELTERS IN SAGUACHE COUNTY

Saguache Smelter Saguache Saguache Smelting Co. Saguache Lead
 Tri-Em Mill Bonanza Tri-Em Corp. 524 Cooper Bldg., Denver 2 Lead, Zinc, Copper

OPERATING MILLS, PLANTS AND SMELTERS IN SAN JUAN COUNTY

Pride Mill Howardsville Argyle Mining & Milling Corp. Silverton Gold, Silver, Lead, Zinc, Copper

OPERATING MILLS, PLANTS AND SMELTERS IN SAN MIGUEL COUNTY

Name of Mill or Plant Pandora Mill
 Location Telluride
 Operator Idarado Mining Co.
 P. O. Address Ouray
 Product Gold, Silver, Lead, Zinc, Copper

OPERATING MILLS, PLANTS AND SMELTERS IN SUMMIT COUNTY

Burke-Martin Mill Montezuma
 Teller Basin Mill Montezuma
 Ervin Horn & Assoc. Montezuma
 Product Lead, Zinc, Copper Silver, Lead

OPERATING MILLS, PLANTS AND SMELTERS IN TELLER COUNTY

Carlton Mill Victor
 Golden Cycle Corp. Victor
 Product Gold

OPERATING PLACERS IN CHAFFEE COUNTY

Name of Placer Gold Camp
 Location Buena Vista
 Operator Florence E. Rasmussen
 P. O. Address Box 302, Buena Vista
 Product Tourist Placer

OPERATING PLACERS IN CLEAR CREEK COUNTY

Engadine No. 5 Hamlin Gulch
 New Era Trail Creek
 Frank W. Whitenack
 Price Placer Co. 1365 Kalamath, Denver 4
 Box 362, Georgetown
 Product Gold Gold

OPERATING PLACERS IN GILPIN COUNTY

Durand Brothers Gilpin
 Durand Brothers Box 515, Rollinsville
 Product Gold

OPERATING PLACERS IN LAKE COUNTY

Hawk-Blue Jay Placer Homestake
 Creek
 Ellis B. Webster 400 E. 4th, Leadville
 Product Sand, Gravel

ROAD WORK, TUNNELS AND DAMS—1957

CLEAR CREEK COUNTY

Name of Operation	Location	Operator	P. O. Address	Project
Jones Pass Tunnel	Jones Pass	Michigan Sewer Constructors	Box J, Empire	Water Tunnel
Vasquez Tunnel	Jones Pass	Michigan Sewer Constructors	Box J, Empire	Water Tunnel

GILPIN COUNTY

Moffat Water Tunnel	East Portal	Denver Tunnel Constructors	725 W. 39th Ave., Denver 16	Water Diversion Tunnel
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GRAND COUNTY

Jones Pass Tunnel	Jones Pass	Michigan Sewer Construction Co.	Box J, Empire	Water Tunnel
Vasquez Tunnel	Jones Pass	Michigan Sewer Construction Co.	Box J, Empire	Water Tunnel
Williams Fork Dam	Parshall	Mountain States Construction Co.	Box 116, Hot Sulphur Springs	Raising Dam

LAKE COUNTY

Busk-Ivanhoe (Carlton) Tunnel Leadville Boyles Brothers Drilling Co. 1321 S. Main St., Salt Lake City, Utah Water Tunnel
 Homestake Water Tunnel Turquoise Lake Mazzocco Construction Co. Box 1298, Colorado Springs Water Tunnel

PARK COUNTY

Harold D. Roberts Tunnel Grant Blue River Constructors Dillon Water Tunnel

PITKIN COUNTY

Busk Ivanhoe (Carlton) Tunnel Boyles Brothers Drilling Co. 1321 S. Main St., Salt Lake City, Utah Retimbering and Cleaning Water Tunnel

SAN MIGUEL COUNTY

U.C.N.C. Water Tunnel Slick Rock Brasler Brothers Construction Co. Norwood Water Tunnel

SUMMIT COUNTY

Harold D. Roberts Tunnel Dillon Blue River Constructors Dillon Water Tunnel
 Montezuma Shaft Montezuma Blue River Constructors Dillon Water Tunnel
 Ten Mile Diversion Tunnel Climax Boyles Brothers Drilling Co. 1321 S. Main St., Salt Lake City, Utah Water Tunnel

CORE AND WAGON DRILLING OPERATIONS

Boyles Brothers Drilling Co. 1321 S. Main St., Salt Lake City, Utah Colorado Plateau
 Brasler Brothers Construction Co. Norwood Colorado Plateau
 Franklin & Cowan Box 546, Ozona, Texas Colorado Plateau
 Johnson & Youvan Naturita Colorado Plateau
 Lee Ansell Box 98, Dove Creek Colorado Plateau
 Lippoth & Wehn Drilling Co. Box 502, Grand Junction Colorado Plateau
 McPherson Drilling Co. 324 N. Townsend, Montrose Colorado Plateau
 Minerals Engineering Co. Box 1951, Grand Junction Colorado Plateau
 Mitchell Drilling Co. 516 Lilac Lane, Grand Junction Colorado Plateau
 Sanchez & Company Dove Creek Colorado Plateau
 Sexton Brothers Drilling Co. Box 506, Cortez Colorado Plateau
 Sprague & Henwood Box 645, Grand Junction Colorado Plateau
 Swank Drilling & Exploration Co. Box 638, Moab, Utah Colorado Plateau
 Vernon Lehr 2007 Orchard Ave., Grand Junction Colorado Plateau

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