

STATE OF MONTANA

Tim Babcock, *Governor*

BUREAU OF MINES AND GEOLOGY

E. G. Koch, *Director*

BULLETIN 38

February, 1964

**DIRECTORY OF MINING ENTERPRISES  
FOR 1963**

with a section on  
**THE MINERAL INDUSTRY OF MONTANA  
IN 1963**

**MONTANA BUREAU  
of  
MINES AND GEOLOGY  
Butte, Montana**





STATE OF MONTANA  
BUREAU OF MINES AND GEOLOGY  
E. G. Koch, Director

BULLETIN 38

D I R E C T O R Y  
O F  
M I N I N G   E N T E R P R I S E S   F O R   1 9 6 3

by

Robert D. Geach

with a

LIST OF ACTIVE COAL MINES, 1963

by Thomas Morgan  
State Coal Mine Inspector

and a section on

THE MINERAL INDUSTRY OF MONTANA IN 1963

by

F. B. Fulkerson, A. J. Kauffman, Jr., and R. W. Knostman  
U. S. Department of the Interior, Bureau of Mines



MONTANA SCHOOL OF MINES  
Butte, Montana  
February 1964



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D I R E C T O R Y  
O F  
M I N I N G   E N T E R P R I S E S   F O R   1 9 6 3

by

Robert D. Geach

I N T R O D U C T I O N

Each year Bureau geologists visit as many mining properties as they can during the course of their regular field projects. As it is not possible to visit in person all the properties each year, contact is maintained with Montana mine operators and owners by mail. The information gained by this effort and from personal interviews is then compiled and published annually in our Directory of Mining Enterprises.

Before 1962 the Directory at times underwent changes in arrangement of information. Last year, however, a new directory format was introduced and this format is used again this year. With the present arrangement we feel that the reader can acquire almost at a glance a better understanding of Montana's mineral industry and resources.

As shown by the Table of Contents, the first portion of the Directory is divided into two parts--Part 1, Metal Mines, and Part 2, Nonmetal Mines, Pits, and Quarries. Under each part in order is the principal type of ore or mineral product. Individual mine names can be found by referring to their respective commodities for page numbers and then in order under the name of the county in which they are located, but a page index is provided at the back to facilitate looking up mines when only the mine names are known.



The Directory also contains a list of inactive mines. The list is not all inclusive, as it would be impractical to list all such mining properties in Montana in a publication of this size. Listed only are those mines that have been active within the last few years.

The rest of the Directory contains a list of Montana coal mines active in 1963 and the state coal production report, both compiled by Thomas Morgan, State Coal Mine Inspector, and a report entitled The Mineral Industry of Montana in 1963, by F. B. Fulkerson, A. J. Kauffman, Jr., and R. W. Knostman of the Bureau of Mines, U. S. Department of the Interior, Region I.

The author is grateful to the many Montana mine owners and operators for their help and assistance, and special acknowledgment is due Mr. Morgan and Mr. Kauffman for their part in this publication.

Every effort has been made to publish exact and complete information. The inclusion of a property in the Directory, however, is by no means an endorsement, and responsibility for statements rests with the person who provided the information, and not with the Bureau of Mines and Geology. Conversely, an omission of a property is not to be taken as a reflection on its merits. Such omissions are known to occur, but are usually traceable to failure by the last known operator to respond to repeated requests for necessary information. Nevertheless, in most such cases, the missing data have been supplied from the best sources available.

If any additional information or corrections are needed and can be provided, please submit such information to the Montana Bureau of Mines and Geology, Butte, Montana. Your help is needed to keep this yearly publication as up to date as possible.

The abbreviations used throughout this Directory are: sec., section; T., township; R., range; and t/d, tons per day.



P A R T 1, M E T A L M I N E S

CHROME MINES

STILLWATER COUNTY: Columbus, County Seat

MOUAT MINE

Operator: American Chrome Co.  
5900 East 39th Ave.  
Denver, Colo.

Owner: M. W. Mouat Estate  
Nye, Montana

Mill capacity: 1,000 t/d

Employees: 4

Status: Inactive

Nye district,  
sec. 20, 21, 28,  
29, and 30,  
T. 5 S., R. 15 E.

COLUMBIUM MINES

RAVALLI COUNTY: Hamilton, County Seat

RYE CREEK PROSPECT

Operator: J. T. Abbey and M. Wilson  
Box 47, Darby, Montana

Owner: Same as operator

Status: Inactive

Rye Creek district,  
sec. 29, T. 3 N.,  
R. 20 W.

GOLD, SILVER, COPPER, LEAD, ZINC MINES

BEAVERHEAD COUNTY: Dillon, County Seat

AMARANTH MINE

Operator: George V. Elder  
Box 14, Dillon, Montana

Owner: G. V. and A. V. Elder  
Box 14, Dillon, Montana

Status: Developing

Lead,  
silver

Argenta district,  
sec. 29, T. 6 S.,  
R. 10 W.

CLARA (MARTIN) MINE

Operator: Alfred Fisher  
1727 Wall St.

Butte, Montana

Owner: Alfred and Marie Fisher  
1727 Wall St., Butte, Montana

Employees: 5 (part time)

Status: Inactive

Gold,  
silver

Jackson district,  
unsurveyed, T. 3 S.,  
R. 13 W.

GOLD, SILVER, COPPER, LEAD, ZINC MINES, cont'd.

BEAVERHEAD COUNTY, cont'd.

COMET MINE	Silver	Elkhorn district,
Operator: Western Engineering		sec. 22, T. 4 S.,
Co., Riverton, Wyoming		T. 12 W.
Owner: Roger Pierce,		
521 S. Washington,		
Dillon, Montana		
Employees: 6		
Status: Developing		

COOLIDGE MINE	Gold,	Argenta district,
Operator: R. J. Hirst,	lead,	sec. 18, T. 6 S.,
Argenta Star Route,	silver,	R. 10 W.
Dillon, Montana	zinc,	
Owner: John Hand,	copper	
Argenta, Montana		
Employees: 1		
Status: Developing		

CROSS MINE	gold,	Argenta district,
Operator: Carl and Stanley	silver	sec. 11, T. 6 S.,
Shafer, Dillon, Montana		R. 11 W.
Owner: John Shafer and		
Associates, Dillon, Montana		
Status: Producing		

DIADEM GROUP (ARNOLD) MINE*	Gold	Wisdom district,
Operator: Diadem Co.,	lead,	sec. 7 and 18,
618 S. Jefferson Ave.,	silver,	T. 3 S., R. 14
Spokane 4, Washington	copper	W.
Owner: J. F. Arnold,		
Wisdom, Montana		
Status: Developing		

ERMONT MINE	Gold	Argenta district,
Operator: R. A. Wellborn,		sec. 35, T. 6 S.,
Grant, Montana		R. 11 W.
Owner: Same as operator		
Status: Producing		

EXCELSIOR MINE	Gold,	Bannack district,
Operator: Grand Deposit	silver	sec. 8, T. 8 S.,
Mining Co., c/o Charles Steen,		R. 11 W.
Reno, Nevada		
Owner: P & F Shenon,		
Salt Lake City, Utah		
Status: Inactive		

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\*Open pit.

GOLD, SILVER, COPPER, LEAD, ZINC MINES, cont'd.

BEAVERHEAD COUNTY, cont'd.

<p>FAITHFUL MINE                      Operator: Harold A. Braham,                      939 Waukesha St.,                      Butte, Montana                      Owner: Helen J. Browne Estate,                      Box 399, Butte, Montana                      Employees: 3                      Status: Unknown</p>	<p>gold,                      silver</p>	<p>Vipond district</p>
<p>GRAY JOCKY MINE                      Operator: Braham and                      Wilhelm, 939 Waukesha St.,                      Butte, Montana                      Owner: Jacobs Estate,                      First National Bank,                      Missoula, Montana                      Employees: 5                      Status: Unknown</p>	<p>silver,                      gold,                      silica</p>	<p>Vipond district,                      sec. 2 and 3,                      T. 2 S., R. 11 W.</p>
<p>HECLA MINE                      Operator: L. B. Lively,                      Melrose, Montana                      Owner: Same as operator                      Status: Producing</p>	<p>gold,                      silver</p>	<p>Bryant (Hecla)                      district, sec. 2,                      T. 3 S., R. 11 W.</p>
<p>MAIDEN CREEK COPPER MINE                      Operator: Chester A. Given,                      Route 1, Box 44C,                      Arco, Idaho                      Owner: Same as operator                      Employees: 1                      Status: Developing</p>	<p>copper,                      silver</p>	<p>Chinatown district,                      sec. 23, T. 11 S.,                      R. 13 W.</p>
<p>MAULDEN MINE                      Operator: Hand Mines,                      30 S. Arizona St.,                      Dillon, Montana                      Owner: Ida B. Hand,                      Dillon, Montana                      Mill capacity: 20 t/d                      Employees: 3                      Status: Producing</p>	<p>gold,                      silver,                      lead</p>	<p>Argenta district,                      NW<math>\frac{1}{4}</math>NW<math>\frac{1}{4}</math> sec. 29,                      T. 6 S., R. 10 W.</p>
<p>NEW DEPARTURE MINE                      Operator: Spokane National                      Mines, Inc., 414 Fernwell                      Bldg., Spokane, Washington                      Owner: Same as operator                      Mill capacity: 100 t/d                      Employees: 30                      Status: Developing</p>	<p>gold,                      silver,                      lead,                      copper,                      zinc</p>	<p>Blue Wing district,                      NW<math>\frac{1}{4}</math>NW<math>\frac{1}{4}</math> sec. 26,                      T. 7 S., R. 11 W.</p>



GOLD, SILVER, COPPER, LEAD, ZINC MINES, cont'd.

BEAVERHEAD COUNTY, cont'd.

<p>POLARIS MINE*                      Operator: Lee M. James,                      Polaris, Montana                      Owner: Milton E. Hayes,                      Dillon, Montana                      Employees: 2                      Status: Producing</p>	<p>silver</p>	<p>Polaris (Lost                      Cloud) district,                      sec. 28, T. 5 S.,                      R. 12 W.</p>
<p>QUARTZ HILL TAILINGS*                      Operator: Harold A. Braham,                      939 Waukesha, Butte, Montana                      Owner: Quartz Hill Mining Co.                      Employees: 4                      Status: Unknown</p>	<p>silver,                      silica</p>	<p>Quartz Hill dis-                      trict, sec. 25,                      T. 1 S., R. 11 W.</p>
<p>SWEENEY MINE                      Operator: Hughes, Fox, and                      Ward, c/o A. Ward,                      Galen, Montana                      Owner: Sweeney Estate,                      Deer Lodge, Montana                      Status: Inactive</p>	<p>gold,                      lead,                      silver,                      zinc</p>	<p>Medicine Lodge                      district, sec. 1                      and 2, T. 13 S.,                      R. 12 W.</p>
<p>SYLVIA MINE DUMP*                      Operator: Rudy Nygren,                      Argenta, Montana                      Owner: George Elder and                      John Collins, Dillon, Montana                      Employees: 1                      Status: Producing</p>	<p>lead,                      gold,                      silver</p>	<p>Argenta district,                      sec. 24, T. 6 S.,                      R. 10 W.</p>
<p>VIRGINIA GULCH MINE                      Operator: John H. Allen,                      Salt Lake City, Utah                      Owner: Alumont, Inc.,                      Dillon, Montana                      Status: Developing</p>	<p>gold,                      silver</p>	<p>Argenta district,                      sec. 14, T. 6 S.,                      R. 11 W.</p>
<p>WHITE CAP MINE                      Operator: George H. Henderson                      P. O. Box 1032, Anaconda,                      Montana                      Owner: G. H. Henderson and                      Wm. I. Ferguson, Box 1032,                      Anaconda, Montana                      Status: Developing</p>	<p>copper,                      lead,                      gold,                      silver,                      zinc</p>	<p>Dickey Bridge                      district</p>

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 \*Open pit.

GOLD, SILVER, COPPER, LEAD, ZINC MINES, cont'd.

BEAVERHEAD COUNTY, cont'd.

YELLOW BAND (SHAFFER GROUP) MINE	gold,	Argenta district,
Operator: John H. Shafer,	silver	SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 2,
205 W. Center,		T. 6 S., R. 11 W.
Dillon, Montana		
Owner: John H. Shafer and		
Associates, 205 W. Center,		
Dillon, Montana		
Status: Producing and developing		

BLAINE COUNTY: Chinook, County Seat

LINDA MINE	lead,	Bear Paw Mountains
Operator: Bear Paw Develop-	silver	district, sec. 19,
ment Co., c/o Homer Pike,		T. 29 N., R. 19 E.
1639 - 5th Ave. N.W.,		
Great Falls, Montana		
Owner: Same as operator		
Employees: 2		
Status: Developing		

BROADWATER COUNTY: Townsend, County Seat

ALPHA CLAIM	gold,	Park (Indian Creek)
Operator: Edward Schmaus,	silver,	district, sec. 24
Townsend, Montana	lead,	and 25, T. 7 N.,
Owner: Edward, Robert, and	copper,	R. 1 W.
Richard Schmaus,	zinc	
Townsend, Montana		
Status: Inactive		

COPPER QUEEN MINE	gold,	Cedar Plains dis-
Operator: Wayne Miller and	silver,	trict, NE $\frac{1}{4}$ sec. 9,
J. C. Forkner, Radersburg,	copper	T. 5 N., R. 1 W.
Montana		
Owner: John J., Elmer, and		
Louisa Rothfus, Butte, Montana		
Status: Producing		

GOLD BUG AND MARY ROSE MINE	gold,	Cedar Plains dis-
Operator: T. E. Carpentier,	silver,	trict, sec. 18,
1847 Princeton Ave.,	copper,	T. 6 N., R. 1 E.
St. Paul, Minnesota	lead	
Owner: Same as operator		
Status: Developing		

GOLD, SILVER, COPPER, LEAD, ZINC MINES, cont'd.

BROADWATER COUNTY, cont'd.

JANUARY MINE Operator: Arthur Hogan and H. Carson, Winston, Montana Status: Unknown	gold, silver, lead, zinc	Beaver district, sec. 26, T. 8 N., R. 1 W.
KEATING MINE Operator: Peter Antonioli, Butte, Montana Status: Produced	gold	Radersburg dis- trict, sec. 18, T. 5 N., R. 1 E.
PIONEER Operator: Bill Lowery, Townsend, Montana Status: Unknown	silver	Indian Creek district, sec. 35, T. 7 N., R. 1 W.
SILVER QUEEN MINE Operator: Rougle and Whitney, Radersburg, Montana Owner: T. E. Carpentier and Guy Christian, 1847 Princeton, St. Paul, Minnesota Status: Developing	silver, lead, zinc	Indian Creek district
SILVER SADDLE MINE Owner: Harold Hogan, 923 Wilder Ave., Helena, Montana Status: Developing	silver, lead, zinc	Beaver district
STABLER MINE Operator: J. C. Forkner, Winston, Montana Status: Unknown	gold, silver, copper, lead, zinc	Beaver district
VALLEY VIEW MINE Operator: Warren Schreiner, P. O. Box 665, Townsend, Montana Owner: Same as operator Status: Developing	gold, silver, lead, zinc	Park district, sec. 24, T. 7 N., R. 1 E.



GOLD, SILVER, COPPER, LEAD, ZINC MINES, cont'd.

CASCADE COUNTY: Great Falls, County Seat

<p>LEXINGTON MINE                  Operator: Lexington Silver-                  Lead Mining Co.,                  621 Columbia Bldg.,                  Spokane, Washington                  Owner: Same as operator                  Mill capacity: 125 t/d                  Employees: 5                  Status: Producing</p>	<p>gold,                  silver,                  lead,                  zinc</p>	<p>Montana district,                  sec. 28, T. 14 N.,                  R. 8 E.</p>
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<p>STAR MINES                  Operator: Lewis B. Stark,                  Neihart, Montana                  Owner: Same as operator                  Mill capacity: 50 to 75 t/d                  Status: Inactive</p>	<p>silver,                  lead,                  zinc</p>	<p>Montana district,                  sec. 29 and 30,                  T. 14 N., R. 8 E.</p>
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DEER LODGE COUNTY: Anaconda, County Seat

<p>ALTURAS MINE                  Operator: Pete Fortunati,                  Philipsburg, Montana                  Owner: The Anaconda Co.,                  Butte, Montana                  Status: Producing</p>	<p>silver</p>	<p>Silver Lake dis-                  trict, sec. 33,                  T. 5 N., R. 13 W.</p>
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<p>CAMERON QUARTZ LODE MINE                  Operator: Thomas M. Moe,                  Anaconda, Montana                  Owner: The Anaconda Co.,                  Butte, Montana                  Employees: 2 (part time)                  Status: Producing</p>	<p>gold,                  silver,                  silica</p>	<p>Nelly district,                  sec. 21, T. 5 N.,                  R. 12 W.</p>
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<p>CHAMPION SILVER MINE                  Operator: Miles Blunt,                  Finlen Hotel, Butte, Montana                  Owner: The Anaconda Co.,                  Butte, Montana                  Employees: 8                  Status: Developing</p>	<p>gold,                  silver</p>	<p>Oro Fino district,                  sec. 28 and 33,                  T. 6 N., R. 8 W.</p>
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<p>GOLD COIN MINE                  Operator: David B. Kinerk,                  Anaconda, Montana                  Status: Unknown</p>	<p>gold</p>	<p>Silver Lake dis-                  trict, NE<math>\frac{1}{4}</math> sec. 20,                  T. 5 N., R. 13 W.</p>
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GOLD, SILVER, COPPER, LEAD, ZINC MINES, cont'd.

DEER LODGE COUNTY, cont'd.

SILVER CHAIN MINE	silver,	Olson Gulch
Operator: George H. Henderson,	copper	district
P. O. Box 1032		
Anaconda, Montana		
Owner: Same as operator		
Status: Developing		
SILVER KING MINE	silver	
Operator: Nick Laslovich,		
Anaconda, Montana		
Status: Producing		
SILVER REEF MINE	gold,	Silver Lake dis-
Operator: William C. Montgomery,	silver	trict, sec. 22,
1818 West Park,		T. 5 N., R. 13 W.
Anaconda, Montana		
Owner: Same as operator		
Status: Producing		

FERGUS COUNTY: Lewistown, County Seat

BLACK BULL MINE	gold,	Warm Springs
Operator: Granville S. Abbott,	silver,	district, sec. 7,
Gilt Edge Route, Lewistown,	copper,	T. 16 N., R. 20 W.
Montana	lead,	
Owner: Same as operator	zinc	
Status: Producing		
SHEEP MOUNTAIN MINE	gold,	Judith Mountain
Operator: Lawrence Lenling,	silver,	district, sec. 4
P. O. Box 74, Lewistown,	copper,	and 5, T. 16 N.,
Montana	lead,	R. 20 E.
Owner: Same as operator	graphite	
Employees: 1		
Status: Developing		
SILVER DYKE MINE*	gold,	Warm Springs
Operator: Tom Downen,	silver	district, sec. 2,
1000 W. Main, Lewistown,		T. 16 N., R. 19 E.
Montana		
Status: Developing		

FLATHEAD COUNTY: Kalispell, County Seat

OLE MINE	gold,	Hog Heaven dis-
Operator: Marion Fishel,	silver,	trict, sec. 18,
742 - 6th Ave. West,	copper	T. 25 N., R. 23 W.
Kalispell, Montana		
Owner: Northern Pacific Railway Co.		
Status: Developing		

-----  
\*Open pit.

GOLD, SILVER, COPPER, LEAD, ZINC MINES, cont'd.

FLATHEAD COUNTY, cont'd.

<p>SANKO CREEK MINE                  Operator: Marion Fishel,                  742 - 6th Ave. West,                  Kalispell, Montana                  Owner: Same as operator                  Status: Developing</p>	<p>gold,                  silver,                  copper</p>	<p>Star Meadow dis-                  trict, NW<math>\frac{1}{4}</math> sec. 29,                  T. 31 N., R. 24 W.</p>
<p>WEST FLATHEAD MINE                  Operator: Waino Lindbom,                  1545<math>\frac{1}{2}</math> - 7th Ave. West,                  Kalispell, Montana                  Owner: The Anaconda Co.,                  Butte, Montana                  Employees: 4                  Status: Producing</p>	<p>silver,                  lead</p>	<p>Hog Heaven dis-                  trict, sec. 17,                  T. 25 N., R. 23 W.</p>

GRANITE COUNTY: Philipsburg, County Seat

<p>ALGONQUIN DUMP*                  Operator: Ernest Mazza and                  Kenneth Bauers,                  Philipsburg, Montana                  Owner: Trout Mining Co.,                  Philipsburg, Montana                  Status: Produced</p>	<p>gold,                  silver,                  copper,                  lead,                  zinc</p>	<p>Flint Creek dis-                  trict, sec. 30,                  T. 7 N., R. 13 W.</p>
<p>BI-METALLIC TAILINGS*                  Operator: Ernest Mazza and                  H. Bush, Philipsburg, Montana                  Owner: Contact Mining Co.,                  524 S. Washington St.,                  Butte, Montana                  Status: Producing</p>	<p>silver,                  lead,                  zinc,                  manganese</p>	<p>Flint Creek dis-                  trict, SE<math>\frac{1}{4}</math>SE<math>\frac{1}{4}</math> sec.                  32, T. 7 N., R.                  13 W.</p>
<p>BLACK PINE (LEWIS SHAFT) MINE                  Operator: James Hunter,                  Philipsburg, Montana                  Employees: 9                  Status: Producing</p>	<p>silver,                  copper</p>	<p>Black Pine district,                  sec. 16, T. 8 N.,                  R. 14 W.</p>
<p>BLACK PINE DUMP*                  Operator: John C. Bork,                  519 W. Porphyry,                  Butte, Montana                  Owner: Same as operator                  Employees: 2                  Status: Producing</p>	<p>gold,                  silver,                  copper,                  tungsten</p>	<p>Flint Creek dis-                  trict, sec. 16,                  T. 8 N., R. 14 W.</p>

-----  
 \*Open pit.



GOLD, SILVER, COPPER, LEAD, ZINC MINES, cont'd.

GRANITE COUNTY, cont'd.

BLACK PINE TAILINGS* Operator: Ben Walkup, Philipsburg, Montana Status: Producing	gold, silver	Black Pine dis- trict, sec. 16, T. 8 N., R. 14 W.
BLACK TAIL NO. 1 AND MINNIE LEE 2 & 3 MINES Operator: L. A. Sherrill, 744 E. Mercury, Butte, Montana Owner: Same as operator Employees: 2 Status: Developing	silver, copper	Silver Hill dis- trict, W $\frac{1}{2}$ sec. 1 and E $\frac{1}{2}$ sec. 2, T. 4 N., R. 14 W.
BROOKLYN MINE Operator: Black and White Mining Co., c/o Roger Little, 2316 Cloverdale Dr., Missoula, Montana Owner: Same as operator Employees: 2 Status: Producing and developing	silver, copper, lead, zinc	Boulder Creek district, SW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 4 and 5, T. 7 N., R. 12 W.
COMANCHE EXTENSION MINE Operator: Joe Metesh Philipsburg, Montana Status: Produced		Flint Creek dis- trict, sec. 19, T. 7 N., R. 13 W.
DANDY MINE Operator: J. D. Hollowell, Drummond, Montana Owner: Louis Imhof, 785 Park Ave., New York, N.Y. Status: Inactive	gold, silver, zinc	Garnet-Elk Creek district, sec. 1 and 2, T. 12 N., R. 14 W.
DOLLY QUARTZ LODE Operator: Olson, Black, and Lund, Philipsburg, Montana Owner: Grace Maehl and Fannie Collins, Philipsburg, Montana Status: Produced	gold, silver, copper	Maxville district
GOLD REEF MINE Owner: Larry McLane, 212 Washington, Anaconda, Montana Status: Developed	gold, silver	South Boulder district, T. 7 N., R. 13 W.

-----  
\*Open pit.

GOLD, SILVER, COPPER, LEAD, ZINC MINES, cont'd.

GRANITE COUNTY, cont'd.

HARPER MINE Operator: Montana Climax Corp., Philipsburg, Montana Status: Produced	gold, silver, copper	Henderson district
HOBO DUMP* Operator: Wm. Byran Hynes, Box K, Philipsburg, Montana Owner: Same as operator Status: Produced	gold, silver, lead, zinc	Sec. 29, T. 7 N., R. 13 W.
HOPE TAILINGS* Operator: Frank Antonioli, Philipsburg, Montana Status: Produced	gold, copper	Hope Hill district, sec. 13, T. 7 N., R. 14 W.
I - B MINE Operator: James Patton and Wm. McLure, Philipsburg, Montana Owner: Same as operator Status: Produced		
MICKY MINE Operator: Eugene Garrett, P. O. Box 324, Anaconda, Montana Owner: Same as operator Mill capacity: 15 t/d Employees: 1 Status: Developing	gold, silver	Red Lion district, sec. 22 and 27, T. 6 N., R. 13 W.
MONTANA LABORATORY MINE Operator: Montana Laboratory Co., Philipsburg, Montana Owner: W. L. Degenhart and E. T. Irvine, Philipsburg Montana Status: Developing	gold, silver, copper, lead, zinc, manganese	Flint Creek dis- trict, sec. 28 and 33, T. 7 N., R. 13 W.
MOUNTAIN BOY MINE Operator: Joe Metesh, Philipsburg, Montana Status: Produced		Flint Creek dis- trict, sec. 19, T. 7 N., R. 13 W.
MYERS QUARTZ CLAIM Operator: Charles Byam, Philipsburg, Montana Owner: Same as operator Employees: 2 Status: Developing	gold, silver, copper, lead, zinc	Moose Lake district, sec. 25, T. 4 N., R. 16 W.

\*Open pit.

GOLD, SILVER, COPPER, LEAD, ZINC MINES, cont'd.

GRANITE COUNTY, cont'd.

NEW SEATTLE MINE

Operator: Grace C. Maehl,  
Maxville, Montana  
Status: Produced

RUMSEY TAILINGS\*

Operator: Dick Tunstill,  
Philipsburg, Montana  
Owner: Mrs. L. R. Nesbit,  
Philipsburg, Montana  
Employees: 2  
Status: Produced

gold,  
silver,  
silica

Flint Creek dis-  
trict, sec. 15 and  
16, T. 6 N., R.  
13 W.

SALLY ELLEN MINE

Operator: Ben Walkup,  
Philipsburg, Montana  
Owner: Walkup and Puyear,  
Philipsburg, Montana  
Employees: 2 (part time)  
Status: Developing

silver

Maxville district,  
sec. 16, T. 8 N.,  
R. 12 W.

SILVER CREST MINE

Operator: John C. Bork,  
519 W. Porphyry, Butte, Montana  
Status: Produced

SUNDAY MINE

Operator: R. J. MacCalman,  
1010 - 5th St.,  
Deer Lodge, Montana  
Owner: R. W. Marshall, New York City,  
and A. V. Corry, Butte, Montana  
Employees: 2  
Status: Developing

gold

Boulder district,  
SW $\frac{1}{4}$  sec. 27,  
T. 8 N., R. 12 W.

JEFFERSON COUNTY: Boulder, County Seat

AJAX MINE

Operator: Delmas Brown,  
1830 Banks, Butte, Montana  
Owner: Same as operator  
Mill capacity: 50 t/d  
Employees: 4  
Status: Developing

gold,  
silver,  
copper,  
lead,  
silica

Homestake district,  
sec. 6, T. 2 N.,  
R. 7 W.

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\*Open pit.



JEFFERSON COUNTY, cont'd.

ALTA MINE* Operator: Lahey Leasing Co., 506 W. Aluminum, Butte, Montana Owner: Alta Mines Corp., c/o Fred Small, Helena, Montana Status: Producing	gold, silver, copper, lead, zinc, silica	Colorado (Corbin- Wickes) district, sec. 10, T. 7 N., R. 4 W.
BERNICE (SALVAIL) MINE Operator: Roger V. Pierce, 808 Newhouse Bldg., Salt Lake City, Utah Owner: William Mason, 2165 Center Dr., Butte, Montana Employees: 2 Status: Developing	gold, silver, copper, zinc	Colorado district, sec. 17, 18, 19, and 20, T. 7 N., R. 4 W.
BLUEBIRD MINE Operator: Roger V. Pierce, 808 Newhouse Bldg., Salt Lake City, Utah Status: Developing	silver, lead, zinc	Colorado district, sec. 13, T. 7 N., R. 5 W.
BOULDER MINE Operator: James Bragg, 2327 Harrison Ave., Butte, Montana Owner: Same as operator Status: Producing	gold, silver, zinc	Cataract district, NE $\frac{1}{4}$ NE $\frac{3}{4}$ sec. 13, T. 6 N., R. 6 W.
BULLION MINE* Operator: L. Bragg and John Bullock, Basin, Montana Status: Developing	gold, silver, lead, zinc	Cataract district, sec. 13, T. 7 N., R. 6 W.
CRYSTAL MINE Operator: Delbert Bullock, Basin, Montana Owner: Chester Bullock, Basin, Montana Status: Producing	gold, silver, copper, lead, zinc	Cataract (Basin) district, sec. 20, T. 7 N., R. 5 W.
HILDEBRANT MINE Operator: J. K. Curtiss, P. O. Box 102, Basin, Montana Owner: Same as operator Status: Produced	gold, silver	Cataract district, sec. 34, T. 7 N., R. 5 W.

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\*Open pit,

GOLD, SILVER, COPPER, LEAD, ZINC MINES, cont'd.

JEFFERSON COUNTY, cont'd.

HOMESTEAD MINE

Operator: Joe Metesh,  
Philipsburg, Montana  
Status: Produced

HUMBOLT MINE & BOYCE CLAIMS

Operator: Mr. and Mrs. Stanley  
Boyce, P. O. Box 206,  
Butte, Montana  
Owner: Same as operator  
Status: Producing

silver,  
copper

Homestake district,  
sec. 9, T. 3 N.,  
R. 6 W.

JIB TAILINGS\*

Operator: Joe Metesh,  
Philipsburg, Montana  
Owner: Jefferson Development  
Co., Everett, Washington  
Status: Producing

gold

Basin district,  
sec. 17 and 18,  
T. 6 N., R. 5 W.

KLONDYKE MINE

Operator: Klondyke Gold Mines,  
Inc., c/o Wade V. Lewis,  
Boulder, Montana  
Owner: Charles and Lilah Schreiner,  
3011 Richardson, Butte, Montana  
Employees: 2  
Status: Producing and developing

gold,  
copper

Elkhorn district,  
sec. 11, T. 6 N.,  
R. 3 W.

LUCKY HIT MINE

Operator: Everett Bowers,  
Whitehall, Montana  
Owner: Mrs. Francis Wolfe,  
Whitehall, Montana  
Employees: 2  
Status: Produced

gold,  
silver,  
copper,  
lead,  
zinc

Whitehall district,  
NW $\frac{1}{4}$  sec. 19,  
T. 2 N., R. 4 W.

MAY AND LITTLE SALLIE MINE

Operator: John K. Sarri,  
305 Clancy St.,  
Helena, Montana  
Status: Developing

gold,  
silver,  
copper,  
lead,  
zinc

Colorado (Katy Gulch)  
district, sec. 1,  
T. 7 N., R. 5 W.

MORNING GLORY MINE

Operator: J. K. Curtiss,  
Box 102, Basin, Montana  
Owner: P. O. Dorweiller,  
Algona, Iowa, and J. K. Curtiss,  
Basin, Montana  
Employees: 2 (part time)  
Status: Developing

gold,  
silver,  
lead,  
zinc

Cataract district,  
sec. 33, T. 7 N.,  
R. 5 W.

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\*Open pit.

GOLD, SILVER, COPPER, LEAD, ZINC MINES, cont'd.

JEFFERSON COUNTY, cont'd.

<p>MT. THOMPSON MINE                      Operator: J. K. Curtiss,                      Box 102, Basin, Montana                      Owner: James A. Poore, et al,                      Silver Bow Bldg., Butte,                      Montana                      Employees: 3                      Status: Producing and developing</p>	<p>gold,                      silver,                      silica</p>	<p>Cataract district,                      sec. 34, T. 7 N.,                      R. 5 W.</p>
<p>NELLIE GRANT MINE                      Operator: Barmont Mines, Inc.,                      2624 Edwards St.,                      Butte, Montana                      Owner: C. E. Pew,                      Helena, Montana                      Status: Developing</p>	<p>gold,                      silver,                      lead,                      zinc</p>	<p>Clancy-Lump Gulch                      district, sec. 14,                      T. 8 N., R. 5 W.</p>
<p>NEW BALD EAGLE MINE                      Operator: William Mulcahy,                      Box 21, Butte, Montana                      Owner: Same as operator                      Status: Developing</p>	<p>gold,                      silver,                      lead</p>	<p>Big Foot district,                      sec. 16, T. 4 N.,                      R. 5 W.</p>
<p>PERHAPS LODGE CLAIM                      Operator: Lester Lindquist,                      Box 373, Whitehall, Montana                      Owner: The Anaconda Co.,                      Butte, Montana                      Employees: 1                      Status: Developing</p>	<p>gold,                      silver,                      lead</p>	<p>Whitehall district,                      sec. 13 and 18,                      T. 2 N., R. 3 and                      4 W.</p>
<p>REDEMPTION MINE                      Operator: Joe Metesh,                      Philipsburg, Montana                      Status: Produced</p>		
<p>SILVER HILL MINE                      Operator: Harold Guilio,                      Boulder, Montana                      Status: Produced</p>	<p>gold,                      silver,                      copper,                      lead, zinc</p>	
<p>SILVER QUEEN MINE                      Operator: James Leary,                      Wm. Eagan, and Wm. Bette,                      Butte, Montana                      Owner: James P. Leary,                      2830 Yale Ave., Butte, Montana                      Employees: 2                      Status: Producing and developing</p>	<p>gold,                      silver,                      copper</p>	<p>Whitehall district,                      sec. 6, T. 2 N.,                      R. 5 W.</p>



GOLD, SILVER, COPPER, LEAD, ZINC MINES, cont'd.

JEFFERSON COUNTY, cont'd.

SUNNYSIDE MINE	gold,	Cardwell district,
Operator: Lester Lindquist,	silver	SE $\frac{1}{4}$ sec. 13,
Box 373, Whitehall, Montana		T. 2 N., R. 4 W.
Owner: Same as operator		
Employees: 1		
Status: Developing		

JUDITH BASIN COUNTY: Stanford, County Seat

BLOCK P MINE	gold,	Sec. 6, T. 15 N.,
Operator: Hughesville Lumber	silver,	R. 9 E.
and Mining Co., Box 27,	lead,	
Monarch, Montana	zinc	
Owner: American Smelting &		
Refining Co., 120 Broadway,		
New York, N. Y.		
Status: Unknown		

GOLD BUG (WEATHERWAX) MINE	gold,	Yogo district,
Operator: W. Lehman, Box 780,	silver,	sec. 29, T. 14 N.,
Lewistown, Montana	copper	R. 10 E.
Owner: Same as operator		
Status: Developing		

LIBERTY MINE	silver,	Barker district,
Operator: Faith Mining Co.,	lead,	sec. 6, 7, and 18,
Monarch, Montana	zinc	T. 15 N., R. 9 E.
Owner: Faith Mining Co.,		
Box 1681, Helena, Montana		
Status: Developing		

LEWIS AND CLARK COUNTY: Helena, County Seat

CONSOLATION MINES	silver	Heddleston district,
Operator: John A. Thompson,		sec. 21, T. 15 N.,
Lincoln, Montana		R. 6 W.
Employees: 5		
Status: Producing and developing		

COPPER HILL MINE	gold,	Canyon Creek dis-
Operator: Bear Creek Mining	silver,	trict, sec. 13,
Co., Spokane, Washington	copper,	18, 19, and 24,
Owner: G. H. Henderson,	silica	T. 11 N., R. 4 W.
Al McVay, and Wm. Steyle,		
P. O. Box 1032, Anaconda,		
Montana		
Status: Developing		

GOLD, SILVER, COPPER, LEAD, ZINC MINES, cont'd.

LEWIS AND CLARK COUNTY, cont'd.

<p>EMPIRE MINE                      Operator: Jack Vandenberg,                      5 Hilmen Rd., Helena, Montana                      Owner: Same as operator                      Mill capacity: 300 t/d                      Employees: 4                      Status: Developing</p>	<p>gold,                      silver,                      lead</p>	<p>Marysville district,                      sec. 33 and 34,                      T. 12 N., R. 6 W.</p>
<p>FRANKLIN MINE                      Operator: Helena Minerals                      Co., Inc., c/o C. Leirness,                      1900 - 11th Ave.,                      Helena, Montana                      Owner: Thomas Cruse Mining                      and Developing Co., Box 137,                      Helena, Montana                      Employees: 1                      Status: Inactive</p>	<p>gold,                      silver,                      copper,                      lead</p>	<p>Scratch Gravel                      district, sec. 11,                      T. 10 N., R. 4 W.</p>
<p>GOLD DOLLAR MINE                      Operator: Earl Foster,                      Lincoln, Montana                      Owner: Same as operator                      Employees: 2                      Status: Developing</p>	<p>gold,                      silver,                      copper,                      lead,                      zinc</p>	<p>Poorman district,                      sec. 5, T. 13 N.,                      R. 8 W.</p>
<p>HUMDINGER MINE                      Operator: Ray W. Crumb,                      Avon, Montana                      Owner: Same as operator                      Mill capacity: 4 t/d                      Status: Producing and developing</p>	<p>gold,                      silver,                      copper</p>	<p>Madison Gulch                      district, sec. 35,                      T. 13 N., R. 9 W.</p>
<p>MONTE CHRISTO MINE                      Operator: Hans Mo, Box 284,                      Helena, Montana                      Owner: Same as operator                      Status: Developing</p>	<p>gold,                      silver,                      copper,                      lead</p>	<p>Rimini (Vaughn)                      district, sec. 17,                      T. 8 N., R. 5 W.</p>
<p>SAM GATY MINE                      Operator: Helena Minerals                      Co., Inc., c/o C. Leirness,                      1900 - 11th Ave.,                      Helena, Montana                      Owner: C. E. Pew, et al,                      617 Holter Ave.,                      Helena, Montana                      Employees: 8                      Status: Inactive</p>	<p>gold,                      silver,                      copper,                      lead</p>	<p>Ten Mile district,                      sec. 11, T. 10 N.,                      R. 4 W.</p>

GOLD, SILVER, COPPER, LEAD, ZINC MINES, cont'd.

LEWIS AND CLARK COUNTY, cont'd.

<p>WOODROW WILSON MINE                  Operator: Lee Irelan Mining                  Co., Inc., 820 - 6th Ave.,                  Helena, Montana                  Owner: Same as operator                  Employees: 1 to 3                  Status: Inactive</p>	<p>gold,                  silver,                  silica</p>	<p>Rimini district,                  sec. 29, T. 8 N.,                  R. 5 W.</p>
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LIBERTY COUNTY: Chester, County Seat

<p>SWEETGRASS MINE                  Operator: L. R. Hannah and                  Cedor Aronow, Box 792,                  Shelby, Montana                  Owner: Same as operator                  Employees: 2                  Status: Producing and developing</p>	<p>gold,                  silver,                  copper,                  lead</p>	<p>East Butte dis-                  trict, sec. 25,                  T. 36 N., R. 4 E.</p>
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MADISON COUNTY: Virginia City, County Seat

<p>AMAZON MINE                  Operator: Tom Pritchett and                  Charles Richardson,                  Divide, Montana                  Owner: R. A. Malesich,                  Dillon, Montana                  Status: Producing and developing</p>	<p>silver,                  copper</p>	<p>Stone Creek dis-                  trict, T. 7 S.,                  R. 6 W.</p>
<p>BIG BERTHA MINE                  Operator: Fred R. Starner,                  Box 223, Sheridan, Montana                  Owner: Same as operator                  Status: Developing</p>	<p>gold,                  silver</p>	<p>Tidal Wave dis-                  trict, sec. 34,                  T. 4 S., R. 5 W.</p>
<p>BLACK ACE MINE                  Operator: Louis R. Lepp,                  Whitehall, Montana                  Owner: Lewis C. Rollins,                  P. O. Box 4, Waterloo, Montana                  Status: Producing and developing</p>	<p>gold,                  silver,                  lead,                  zinc</p>	<p>Tidal Wave dis-                  trict, NW<math>\frac{1}{4}</math>NE<math>\frac{1}{4}</math>                  sec. 34, T. 3 S.,                  R. 5 W.</p>
<p>B. L. M. W. MINING CORP.                  Operator: Walter H. Myers,                  Virginia City, Montana                  Owner: Everett Barnett, James                  Webster, J. M. Leptich,                  Seattle, Washington; and                  Walter H. Myers, Virginia City                  Employees: 3                  Status: Developing</p>	<p>gold,                  silver</p>	<p>Fairweather dis-                  trict, sec. 26                  and 34, T. 6 S.,                  R. 3 W.</p>



GOLD, SILVER, COPPER, LEAD, ZINC MINES, cont'd.

MADISON COUNTY, cont'd.

BOULDER COBALT MINE	gold,	Tidal Wave dis-
Operator: Boulder Lake Corp.,	lead	trict, sec. 5, 6,
Butte, Montana		and 8, T. 3 S.,
Owner: A. A. Moser and		R. 4 W.
Norman Smith, Hardin, Montana		
Status: Developing		
COPPEROPOLIS MINE		
Operator: F. W. Bailor		
Spokane, Washington		
Status: Produced		
Dictator & Belle Union Mine	copper	Ramshorn (un-
Operator: Woodford Corp.,		organized) district,
2041 S. W. 58th Ave.,		sec. 1 and 12,
Portland, Oregon		T. 5 S., R. 4 W.
Owner: Union Bank and Trust		
Co. as Ex. Est. Wm. A. Clark,		
Helena, Montana		
Employees: 2		
Status: Producing and developing		
FLORENCE (COOK) MINE	gold,	Bone Basin dis-
Operator: Mike DiLulo,	silver,	trict, sec. 9,
Whitehall, Montana	copper,	T. 1 S., R. 4 W.
Owner: Northern Pacific	lead,	
Railway Co., St. Paul, Minn.	zinc,	
Status: Developing	iron	
GARNET MINE	gold,	Pony district,
Operator: Ed Scheitlen,	silver,	sec. 23, T. 2 S.,
Virginia City, Montana	lead	R. 3 W.
Status: Produced		
GOLD PLATE MINE	gold,	Cherry Creek dis-
Operator: Arnold Carter,	silver	trict, sec. 31,
Norris, Montana		T. 2 S., R. 2 E.
Owner: L. L. Locke and		
Arnold Carter, Norris, Montana		
Status: Developing		
HAZEL MINE	silver	Washington district
Operator: George Haine,		
Pony, Montana		
Owner: Same as operator		
Status: Developing		

GOLD, SILVER, COPPER, LEAD, ZINC MINES, cont'd.

MADISON COUNTY, cont'd.

<p>HIGH RIDGE MINE                      Operator: Madison High Ridge                      Co., 2015 - 14th St. West,                      Billings, Montana                      Status: Developing</p>	<p>gold,                      silver,                      copper,                      lead</p>	<p>Tidal Wave dis-                      trict, SE<math>\frac{1}{4}</math>SE<math>\frac{1}{4}</math>                      sec. 27, T. 3 S.,                      R. 5 W.</p>
<p>KEARSARGE MINE                      Operator: Virgil Smith,                      Virginia City, Montana                      Owner: Joe Millard, Box 975,                      LaJolla, California                      Employees: 3                      Status: Developing</p>	<p>gold,                      silver</p>	<p>Virginia City                      district, NW<math>\frac{1}{4}</math>NE<math>\frac{1}{4}</math>                      sec. 23, T. 7 S.,                      R. 3 W.</p>
<p>KELLEY-MASSEY MINE                      Operator: Kelley-Massey,                      Sheridan, Montana                      Status: Produced</p>		
<p>LOST LODE MINES                      Operator: John T. Macale,                      Virginia City, Montana                      Owner: Same as operator                      Employees: 3                      Status: Developing</p>	<p>gold,                      silver</p>	<p>Virginia City                      district, sec.                      33 and 34, T.                      6 S., R. 3 W.</p>
<p>MARY INGABAR MINE                      Operator: L. M. Wermoth and                      Dan Pyfer, Whitehall, Montana                      Owner: Mark Pruitt,                      Butte, Montana                      Status: Producing and developing</p>	<p>gold,                      silver</p>	<p>Renova district,                      sec. 3, T. 1 S.,                      R. 4 W.</p>
<p>MISSOURI-MCKEE MINE                      Operator: H. Denny,                      Box 374, Sheridan, Montana                      Owner: Same as operator                      Employees: 2                      Status: Developing</p>	<p>gold,                      silver</p>	<p>Washington dis-                      trict, N<math>\frac{1}{2}</math> sec. 30,                      T. 4 S., R. 2 W.</p>
<p>OXIDENTAL MINE                      Operator: Shermont Mining Co.,                      c/o John Magnus,                      Twin Bridges, Montana                      Owner: Elling Estate Co.,                      1612 Alameda Ave.                      Alameda, California                      Employees: 2                      Status: Developing</p>	<p>gold,                      silver,                      copper,                      lead,                      zinc</p>	<p>Sheridan district,                      sec. 35 and 36,                      T. 3 S., R. 4 W.</p>

GOLD, SILVER, COPPER, LEAD, ZINC MINES, cont'd.

MADISON COUNTY, cont'd.

<p>PACIFIC MINE                      Operator: Ed Scheitlin,                      Virginia City, Montana                      Owner: Easton Pacific &amp;                      Riverside Mining Corp.,                      c/o Ed Scheitlin,                      Virginia City, Montana                      Employees: 3                      Status: Producing and developing</p>	<p>gold</p>	<p>Virginia City dis-                      trict, sec. 4,                      T. 7 S., R. 3 W.</p>
<p>RED PINE MINE                      Operator: Shermont Mining Co.,                      c/o John Magnus,                      Twin Bridges, Montana                      Owner: Ruby Valley Development                      Co., Inc., 14503 Washington Ave.                      S. W., Tacoma, Washington                      Mill capacity: 100 t/d                      Employees: 8                      Status: Producing and developing</p>	<p>gold,                      silver</p>	<p>Sheridan district,                      sec. 5, T. 4 S.,                      R. 4 W.</p>
<p>ST. LAWRENCE MINE                      Operator: St. Lawrence                      Consolidated Mines, Inc.,                      Virginia City, Montana                      Owner: E. W. Smith,                      Virginia City, Montana                      Employees: 2                      Status: Developing</p>	<p>gold,                      silver,                      copper</p>	<p>Browns Gulch dis-                      trict, sec. 23,                      T. 6 S., R. 3 W.</p>
<p>SCALDED CAT MINE                      Operator: Emmett Clary,                      Pony, Montana                      Owner: Same as operator                      Employees: 1                      Status: Developing</p>	<p>gold,                      silver</p>	<p>Mineral Hill dis-                      trict, sec. 14,                      T. 2 S., R. 3 W.</p>
<p>SHOEMAKER MINE                      Operator: John A. Layton,                      3104 Busch St., Butte,                      Montana                      Owner: R. Dickie and R. Woods,                      Butte, Montana                      Status: Unknown</p>	<p>gold,                      silver</p>	<p>Rabbit district,                      SE<math>\frac{1}{4}</math>NE<math>\frac{1}{4}</math> sec. 7,                      T. 3 S., R. 7 W.</p>



GOLD, SILVER, COPPER, LEAD, ZINC MINES, cont'd.

MADISON COUNTY, cont'd.

SHORT SHIFT MINE	gold,	Rabbit district,
Operator: John Layton,	silver	SE $\frac{1}{4}$ sec. 6, T. 2 S.,
Butte, Montana		R. 7 W.
Owner: Same as operator		
Mill capacity: 20 t/d		
Employees: 1		
Status: Developing		

SILVER BULLION MINE	silver	Mill Creek dis-
Operator: Horse Creek		trict, sec. 27 and
Development Co.,		28, T. 4 S.,
1327 W. Granite, Butte, Montana		R. 4 W.
Owner: Mrs. Reba Storer,		
1611 - 6th St., Walkerville,		
Montana		
Status: Developing		

SILVER HILL MINE	gold,	Browns Gulch
Operator: Julio Delgrosso,	silver,	(Fairweather) dis-
Box 123, Virginia City,	copper	trict, sec. 33,
Montana		T. 6 S., R. 3 W.
Owner: Same as operator		
Status: Developing		

STRAWBERRY (EXTENSION) MINE	gold,	Mineral Hill
Operator: Fred Box,	silver,	district, NW $\frac{1}{4}$ NE $\frac{1}{4}$
Pony, Montana	tungsten	sec. 14, T. 2 S.,
Owner: Elling Estate Co.,		R. 3 W.
Alameda, California		
Mill capacity: 25 t/d		
Employees: 2		
Status: Producing and developing		

TAMARACK MINE	gold	Mill Creek dis-
Operator: James Tolson,		trict, sec. 17,
Sheridan, Montana		T. 4 S., R. 4 W.
Status: Produced and developing		

MEAGHER COUNTY: White Sulphur Springs, County Seat

COPPER DUKE MINE	gold,	Copperopolis dis-
Operator: Ben Rux,	copper	trict, sec. 14,
Martinsdale, Montana		T. 8 N., R. 8 E.
Owner: Same as operator		
Status: Produced		

GOLD, SILVER, COPPER, LEAD, ZINC MINES, cont'd.

MINERAL COUNTY: Superior, County Seat

BONANZA GROUP MINE Operator: G. M. Gildersleeve, Box 565, Superior, Montana Owner: Same as operator Status: Developing	gold, silver, lead, barite	Cedar Creek dis- trict, sec. 17, T. 15 N., R. 26 W.
EAST COEUR D'ALENE SILVER MINE Operator: The Bunker Hill Co., Kellogg, Idaho Owner: East Coeur d'Alene Silver Mines, Inc., Scott Bldg., Wallace, Idaho Status: Developing	silver, copper, lead, zinc	Keystone district, T. 17 and 18 N., R. 26 and 27 W.
GREEN MOUNTAIN MINE Operator: Dick Tunstill, Philipsburg, Montana Status: Developing		T. 20 N., R. 28 W.
KEYSTONE (PROSPERTY) MINE Operator: Fred W. Wilson and M. E. Engdahl, 1716 S. 9th West, Missoula, Montana Owner: Prosperity Mines, Inc., 1716 S. 9th West, Missoula, Montana Employees: 2 Status: Developing	silver, copper, lead	Keystone district, T. 18 N., R. 26 W.
NANCY LEE MINE Operator: The Bunker Hill Co., Kellogg, Idaho Owner: Nancy Lee Co., 410 Main St., Kellogg, Idaho Mill capacity: 100 t/d Employees: 13 Status: Developing	silver, lead, zinc	Keystone district, sec. 31 and 32, T. 18 N., R. 26 W.
REDEMPTION 1 & 2 and SILVER STREAK 1, 2, & 3 MINE Operator: Roscoe Henderson, Box 441, Superior, Montana Owner: Same as operator Status: Developing	gold, silver, copper, lead	Cedar Creek dis- trict, sec. 7, T. 15 N., R. 27 W.

GOLD, SILVER, COPPER, LEAD, ZINC MINES, cont'd.

MINERAL COUNTY, cont'd.

<p>SPITFIRE MINE          Operator: Donald A. Graham,          St. Regis, Montana          Owner: Same as operator          Employees: 1          Status: Producing and developing</p>	<p>copper</p>	<p>Seven Mile Creek          district, sec. 35,          T. 19 N., R. 27 W.</p>
<p>TARBOX AND MEADOW MOUNTAIN MINE          Operator: Mineral King Mining          Co., c/o Max Swanson,          Dixon Blk, Missoula, Montana          Owner: Same as operator          Status: Developing</p>	<p>gold,          silver,          copper,          lead,          zinc</p>	<p>Saltese-St. Regis          district, sec.          36, T. 20 N.,          R. 31 W.</p>

MISSOULA COUNTY: Missoula, County Seat

<p>NINE MILE MINE          Operator: William Lamont and          Lloyd R. Allen, Huson, Montana          Owner: Same as operator          Mill capacity: 15 t/d          Status: Developing</p>	<p>gold</p>	<p>Nine Mile dis-          trict, sec. 21,          T. 17 N., R. 24 W.</p>
<p>SUSAN MINE          Operator: Cecil Trickey,          Seeley Lake, Montana          Owner: Same as operator          Status: Developing</p>	<p>silver,          copper</p>	<p>Sec. 4, T. 16          N., R. 14 W.</p>
<p>WARD LODGE MINE          Operator: Ward Development          Corp., 321 N. Higgins Ave.,          Missoula, Montana          Owner: Same as operator          Status: Developing</p>	<p>gold,          silver,          copper,          zinc</p>	<p>Sec. 22, T. 11          N., R. 22 W.</p>

PARK COUNTY: Livingston, County Seat

<p>CROWN BUTTE AND MELISSA MINE          Operator: Scott Riley,          Box 356, Cooke City, Montana          Owner: Same as operator          Mill capacity: 5 t/d          Employees: 1          Status: Developing</p>	<p>gold,          silver,          copper,          lead</p>	<p>New World dis-          trict, unsurveyed,          T. 9 S., R. 14 E.</p>
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GOLD, SILVER, COPPER, LEAD, ZINC MINES, cont'd.

PARK COUNTY, cont'd.

<p>GLENGARRY CLAIMS                  Operator: Como Mining Co.,                      Cooke City, Montana                  Owner: Harriet White,                      Spokane, Washington                  Mill capacity: 40 t/d                  Employees: 6 to 8                  Status: Producing</p>	<p>gold, copper</p>	<p>New World district, sec. 12, T. 9 S., R. 14 E.</p>
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PHILLIPS COUNTY: Malta, County Seat

<p>LITTLE BEN MINE                  Operator: Continental                      Materials Corp.,                      412 W. Main, Lewistown, Montana                  Owner: Little Rockies Mining &amp;                      Development Co.,                      Lewistown, Montana                  Employees: 6                  Status: Developing</p>	<p>gold, silver</p>	<p>Little Rockies dis- trict, sec. 15, T. 25 N., R. 24 E.</p>
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<p>RUBY GULCH MINE*                  Operator: Gold Reserve Corp.,                      Professional Bldg.,                      Bozeman, Montana                  Owner: Same as operator                  Mill capacity: 300 to 400 t/d                  Status: Developing</p>	<p>gold, silver</p>	<p>Little Rockies district, sec. 7, T. 25 N., R. 25 E.</p>
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POWELL COUNTY: Deer Lodge, County Seat

<p>CHARTER OAK MINE                  Operator: Charter Oak                      Mining Co., c/o J. T. Bonner,                      Box 566, Elliston, Montana                  Owner: Same as operator                  Mill capacity: 50 t/d                  Status: Developing</p>	<p>gold, silver, lead, zinc</p>	<p>Nigger Hill dis- trict, NW<math>\frac{1}{4}</math>SE<math>\frac{1}{4}</math> sec. 36, T. 9 N., R. 7 W.</p>
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<p>HARD LUCK MINE                  Operator: Lawrence F. Ward,                      Elliston, Montana                  Owner: Hard Luck Mines,                      Elliston, Montana                  Status: Developing</p>	<p>gold, silver, lead, boulangerite, jamsonite, perlite</p>	<p>Elliston district, sec. 14, 16, 17, 20, 21, T. 8 N., R. 6 W.</p>
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 \*Open pit.

GOLD, SILVER, COPPER, LEAD, ZINC MINES, cont'd.

POWELL COUNTY, cont'd.

<p>HIDDEN HAND MINE                      Operator: Howard C. Banks,                      Box 514, Deer Lodge, Montana                      Owner: Same as operator                      Employees: 2                      Status: Developing</p>	<p>gold,                      silver,                      lead,                      zinc</p>	<p>Zosell (Emery)                      district, NW<math>\frac{1}{4}</math>SW<math>\frac{1}{4}</math>                      sec. 2, T. 7 N.,                      R. 8 W.</p>
<p>MONARCH MINE                      Operator: Monarch Minerals,                      Inc., Box 33,                      Helena, Montana                      Owner: Same as operator                      Employees: 3 to 5                      Status: Unknown</p>	<p>gold,                      silver,                      copper,                      lead</p>	<p>Ontario district,                      sec. 30 and 31,                      T. 8 N., R. 6 W.</p>
<p>MOUNTAIN LION MINE                      Operator: Vernon Wallace,                      Elliston, Montana                      Status: Produced</p>		
<p>MOUNTAIN VIEW MINE                      Operator: Tim Colver,                      Drummond, Montana                      Status: Produced</p>		<p>T. 8 N., R. 6 W.</p>
<p>NEGROS MINE                      Operator: John F. Hopkins,                      401 N. Montana,                      Helena, Montana                      Owner: Same as operator                      Status: Producing</p>	<p>gold,                      silver,                      lead</p>	<p>Nigger Hill dis-                      trict, SE<math>\frac{1}{4}</math>SW<math>\frac{1}{4}</math>                      sec. 36, T. 9 N.,                      R. 7 W.</p>
<p>PARDNER MINE                      Operator: Everett Adams,                      Helmville, Montana                      Status: Produced</p>		
<p>PRICE GROUP MINE                      Operator: W. C. Boellard,                      3705 Mesa Vista Way,                      Bonita, California                      Owner: Same as operator                      Employees: 3 (part time)                      Status: Developing</p>	<p>gold,                      silver</p>	<p>Ophir district,                      NE<math>\frac{1}{4}</math>NE<math>\frac{1}{4}</math> sec. 29,                      T. 11 N., R. 7 W.</p>
<p>THIRD TERM MINE                      Owner: Elmer Lince,                      Elliston, Montana                      Mill capacity: 50 t/d                      Status: Developing</p>	<p>gold,                      silver,                      copper,                      lead,                      zinc</p>	<p>Unorganized,                      sec. 28, T. 9 N.,                      R. 6 W.</p>

GOLD, SILVER, COPPER, LEAD, ZINC MINES, cont'd.

POWELL COUNTY, cont'd.

V AND G MINE

Operator: Willis A. Pugh,  
Drummond, Montana  
Status: Produced

SANDERS COUNTY: Thompson Falls, County Seat

BLUE CREEK MINE

Operator: Harold Pellens,  
602 Michigan,  
Libby, Montana  
Status: Produced

silver,  
copper,  
lead,  
zinc

Blue Creek district,  
sec. 3, T. 27 N.,  
R. 34 W.

BONANZA GOLD MINE

Operator: Bonanza Gold, Inc.,  
c/o Frank H. Duval,  
E. 15 Walton Avenue,  
Spokane, Washington  
Owner: Same as operator  
Employees: 2  
Status: Developing

gold

Silver Butte dis-  
trict, sec. 6 and  
7, T. 24 N.,  
R. 30 W.

HEIDELBERG MINE

Operator: Heidelberg Mining  
Co. of Montana, c/o G. A. Myers,  
1001 Court St., Pasco, Washington  
Owner: Same as operator  
Status: Unknown

gold

Noxon district,  
SW $\frac{1}{4}$  sec. 29, NW $\frac{1}{4}$   
sec. 32, T. 27 N.,  
R. 31 W.

LETTERMAN MINE

Operator: Frank Puyear and  
Ben Walkup,  
Philipsburg, Montana  
Owner: Premier Gold Mining Co.,  
Plains, Montana  
Employees: 2  
Status: Inactive

gold,  
silver

Plains district,  
sec. 3, 10, and 34,  
T. 19 and 20 N.,  
R. 26 W.

RAVEN MINE

Operator: Ernest Ecklesdafer,  
532 N. Avenue West,  
Missoula, Montana  
Owner: Same as operator  
Mill capacity: 30 t/d  
Employees: 2 to 3  
Status: Producing and developing

silver,  
copper

Copper King (unor-  
ganized) district,



GOLD, SILVER, COPPER, LEAD, ZINC MINES, cont'd.

SILVER BOW COUNTY: Butte, County Seat

BADGER MINE Operator: The Anaconda Co., Butte, Montana Owner: Same as operator Status: Producing	gold, silver, lead, zinc	Summit Valley dis- trict, NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 7, T. 3 N., R. 7 W.
BERKELEY PIT* Operator: The Anaconda Co., Butte, Montana Owner: Same as operator Status: Producing	gold, silver, copper	Summit Valley dis- trict, NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 18, T. 3 N., R. 7 W.
KELLY MINE Operator: The Anaconda Co., Butte, Montana Owner: Same as operator Status: Producing	gold, silver, copper	Summit Valley dis- trict, SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 7, T. 3 N., R. 7 W.
LEONARD MINE Operator: The Anaconda Co., Butte, Montana Owner: Same as operator Status: Producing	gold, silver, copper	Summit Valley dis- trict, cen. SW $\frac{1}{2}$ sec. 8, T. 3 N., R. 7 W.
MOUNTAIN CON MINE Operator: The Anaconda Co., Butte, Montana Owner: Same as operator Status: Producing	gold, silver, copper	Summit Valley dis- trict, NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 12, T. 3 N., R. 8 W.
PACIFIC MINE Operator: Sam Varelia, 3201 Burlington, Butte, Mont. Status: Produced	silver, copper	Summit Valley dis- trict, sec. 16, T. 3 N., R. 7 W.
STEWARD MINE Operator: The Anaconda Co., Butte, Montana Owner: Same as operator Status: Producing	gold, silver, copper	Summit Valley dis- trict, NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 13, T. 3 N., R. 8 W.
TUXEDO MINE Operator: Ed Hughes, 1301 W. Porphyry, Butte, Montana Owner: Same as operator Employees: 3 Status: Producing and developing	gold, silver	Summit Valley dis- trict, sec. 28, T. 4 N., R. 9 E.

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\*Open pit.

GOLD, SILVER, COPPER, LEAD, ZINC MINES, cont'd.

TOOLE COUNTY: Shelby, County Seat

GOLD BUTTE MINE	gold	Gold Butte dis-
Operator: Ham Mining Co.,		trict, T. 36 N.,
P. O. Box 255, Shelby, Montana		R. 3 E.
Owner: Same as operator		
Status: Developing		

IRON MINES

BEAVERHEAD COUNTY: Dillon, County Seat

JUMPER NO. 1 and 2 MINE	iron ore	Pioneer district,
Operator: G. Elmo Shoup,		sec. 18, T. 3 S.,
Salmon, Idaho		R. 17 W.
Status: Inactive		

BROADWATER COUNTY: Townsend, County Seat

IRON CROSS MINE*	iron ore	Cedar Plains dis-
Operator: Ralls & Harris Bros.,		trict, sec. 12,
Box 114, Radersburg, Montana		T. 5 N., R. 1 W.
Owner: Same as operator		
Employees: 1		
Status: Producing		

MADISON COUNTY: Virginia City, County Seat

RAMSHORN MINE*	iron ore	Sheridan district,
Operator: F and S Mining Co.,		sec. 1, T. 5 S.,
1300 Chicago, Butte, Montana		R. 4 W.
Owner: Same as operator		
Status: Producing		

MANGANESE MINES

GRANITE COUNTY: Philipsburg, County Seat

CADGIE TAYLOR MINE	manganese	Flint Creek dis-
Operator: Joe Metesh,		trict, SW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 19.
Philipsburg, Montana		T. 7 N., R. 13 W.
Status: Produced		

TROUT ALGONQUIN MINE	manganese	Flint Creek dis-
Operator: Trout Mining Co.,		trict, SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec.
c/o C. A. McKinley, Gen. Mgr.,		30, T. 7 N., R. 13
Philipsburg, Montana		W.
Owner: Same as operator		
Mill capacity: 150 t/d		
Status: Inactive		

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\*Open pit.

MANGANESE MINES, cont'd.

GRANITE COUNTY, cont'd.

TRUE FISSURE, DURANGO & MOORLIGHT MINE

Operator: Taylor-Knapp Co., c/o Don Johnson, Box FF, Philipsburg, Montana	manganese	Flint Creek dis- trict, W $\frac{1}{2}$ NW $\frac{1}{4}$ sec. 29, T. 7 N., R. 13 W.
Owner: Same as operator		
Mill capacity: 120 t/d		
Employees: 33		
Status: Producing		

THORIUM AND URANIUM MINES

BEAVERHEAD COUNTY: Dillon, County Seat

LAST CHANCE MINE

Operator: Sawyer Petroleum Co., c/o Ken Allen, 650 So. Grand Ave., Los Angeles, California	thorium	Lemhi Pass dis- trict, sec. 20, 28, and 29, T. 10 S., R. 15 W.
Owner: Same as operator		
Employees: 3		
Status: Developing		

STATE LAND MINE

Operator: Harvey Bell, John R. Goggins, Harry Katseanes, Corbin J. Moore, and Fred Rose, Salmon, Ida.	thorium, uranium	Lemhi Pass dis- trict, part sec. 28 and 21, T. 10 S., R. 15 W.
Owner: State of Montana		
Status: Developing		

CARBON COUNTY: Red Lodge, County Seat

PERC NO. 14, DANDY, MARIE AND BOB GROUP

Operator: J. T. Highsmith, Box 264, Shoshoni, Wyoming	uranium	Pryor Mountains district
Owner: Same as operator		
Status: Developing		

SWAMP FROG MINE

Operator: Prytana Mining Co., Box 775, Forsyth, Montana, or Box 861, Grand Junction, Colorado	uranium	Pryor Mountains district, sec. 21, T. 9 S., R. 27 E.
Owner: Dean-Stoick-Balboa, Forsyth, Montana		
Status: Inactive		



GOLD PLACERS

GRANITE COUNTY: Philipsburg, County Seat

SUNSET PLACER gold Maxville district,  
Operator: Ben Walkup, sec. 20 and 21,  
Box 644, Philipsburg, Montana T. 8 N., R. 12 W.  
Owner: Same as operator  
Employees: 2 (part time)  
Status: Developing

JEFFERSON COUNTY: Boulder, County Seat

FLAG PLACER gold, Homestake district,  
Operator: Del Brown, platinum, sec. 1, T. 2 N.,  
1830 Banks Avenue, black R. 7 W.  
Butte, Montana sand  
Owner: Same as operator  
Employees: 4  
Status: Developing

SKOOKUM PLACER gold Comet district,  
Operator: Theodore Nyquest, sec. 12, T. 5 N.,  
Box 133, Boulder, Montana R. 6 W.  
Owner: Same as operator  
Status: Producing and developing

MEAGHER COUNTY: White Sulphur Springs, County Seat

LAST CHANCE PLACER gold Beaver district,  
Operator: Ted Bykari, sec. 24, T. 11 N.,  
Box 14, Belt, Montana R. 2 E.  
Owner: Same as operator  
Status: Unknown

MINERAL COUNTY: Superior, County Seat

STEMWINDER PLACER gold Cedar Creek dis-  
Operator: George Gildersleeve, trict, sec. 17,  
Box 565, Superior, Montana T. 15 N., R. 26 W.  
Owner: Same as operator  
Status: Developing

MISSOULA COUNTY: Missoula, County Seat

EILEEN MARSHA PLACER gold Nine Mile district,  
Operator: Earl A. Dotson, sec. 2, T. 16 N.,  
2837 Hermosa Ave., R. 23 W.  
Hermosa Beach, California  
Owner: Same as operator  
Status: Developing

GOLD PLACERS, cont'd.

MISSOULA COUNTY, cont'd.

TWIN CREEKS PLACER gold Sec. 26, T. 17 N.,  
Operator: Victor Demin, R. 24 W.  
Route 4, Missoula, Montana  
Owner: Same as operator  
Status: Developing

PARK COUNTY: Livingston, County Seat

W. M. CLAYTON PLACER gold Emigrant district,  
Operator: W. J. Clayton, sec. 29, T. 6 S.,  
Box 54, Pray, Montana R. 9 E.  
Owner: Same as operator  
Status: Developing

POWELL COUNTY: Deer Lodge, County Seat

CHARLES PRYSE PLACER gold Sec. 11, T. 12 N.,  
Operator: Harry C. W. Richter, R. 9 W.  
842 - 8th Avenue, Helena, Montana  
Owner: Same as operator  
Status: Producing and developing

L AND M PLACER gold Washington Gulch  
Operator: C. E. Mitchell and district, sec. 7  
Sons, 308 - 4th Avenue South, and 18, T. 12 N.,  
Great Falls, Montana R. 8 W.  
Owner: Same as operator  
Employees: 2  
Status: Developing

OLD SHOE NO. 1 PLACER gold Finn district  
Operator: Arthur H. Roat and  
Sons, 1821 S. 13th W.,  
Missoula, Montana  
Owner: Same as operator  
Status: Developing

RAVALLI COUNTY: Hamilton, County Seat

HUGHES CREEK PLACER gold, Overwich district,  
Operator: Hughes Creek Dredging silver N $\frac{1}{2}$  T. 3 S., R.  
Co., Inc., Hamilton, Montana 21 W.  
Owner: Asbury Smith,  
Hamilton, Montana  
Employees: 2 to 3  
Status: Producing

GOLD PLACERS, cont'd.

RAVALLI COUNTY, cont'd.

LARRIGON PLACER

Operator: Larrigon Mining  
Co., Hamilton, Montana

Owner: Same as operator

Employees: 4

Status: Developing

gold,  
silver

Hughes Creek dis-  
trict.



P A R T 2, N O N M E T A L M I N E S, P I T S,  
A N D Q U A R R I E S

ASBESTOS MINES

GALLATIN COUNTY: Bozeman, County Seat

KARST MINE\* anthophyllite, Karst Kamp  
Operator: Galaxy Mining Co., asbestos district, sec.  
Billings, Montana 36, T. 5 S.,  
Owner: Interstate Products Co., R. 4 E.  
c/o Charles Lester,  
Bozeman, Montana  
Status: Developing

LINCOLN COUNTY: Libby, County Seat

VERMICULITE MOUNTAIN MINE\* asbestos, Rainy Creek  
Operator: Zonolite Co., tremolite district, sec.  
135 S. LaSalle St., 14, 15, 22, and  
Chicago, Illinois 23, T. 31 N.,  
Owner: Same as operator R. 30 W.  
Status: Developing

BARITE MINES

BEAVERHEAD COUNTY: Dillon, County Seat

LUCKY JIM BEAM GROUP MINE barite Jackson dis-  
Operator: Lee R. Stoddard, trict, sec. 25  
Robert P. Jackson, and 26, T. 4 S.,  
Richard M. Shepard, R. 14 W.  
Jackson, Montana  
Owner: Same as operator  
Status: Inactive

MISSOULA COUNTY: Missoula, County Seat

ELK CREEK MINE barite Elk Creek dis-  
Operator: National Lead Co., trict, sec. 15,  
Box 392, Missoula, Montana T. 13 N., R.  
Owner: Same as operator 24 W.  
Mill capacity: 8 t/h  
Employees: 20  
Status: Producing

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\*Open pit.









LIMESTONE MINES AND QUARRIES, cont'd.

JEFFERSON COUNTY: Boulder, County Seat

McCLELLAN QUARRY limestone McClellan dis-  
Operator: Maronick Construction trict, sec. 7,  
Co., Inc., East Helena, Montana T. 9 N., R. 3 W.  
Owner: E. P. Maronick, East Helena,  
Montana  
Employees: 5  
Status: Producing

POWELL COUNTY: Deer Lodge, County Seat

ELLISTON QUARRY limestone Sec. 5 and 6,  
Operator: Elliston Lime Co., T. 9 N., R. 6 W.  
Box 149, Deer Lodge, Montana  
Owner: Same as operator  
Mill capacity: 200 t/d limestone,  
25 t/d lime  
Employees: 16  
Status: Producing

STILLWATER COUNTY: Columbus, County Seat

GYPSUM PLACER CLAIM limestone Nye district,  
Operator: American Chrome Co., sec. 15, T. 5 S.,  
5900 East 39th Ave., R. 15 E.  
Denver, Colorado  
Owner: M. W. Mouat Estate,  
Nye, Montana  
Employees: 4  
Status: Inactive

PHOSPHATE MINES

BEAVERHEAD COUNTY: Dillon, County Seat

CANYON CREEK (EAST LaMARCHE) MINE Sec. 5, 6, 7,  
Operator: Victor Chemical Works, 30, 31, and 32,  
Division of Stauffer Chemical T. 1 and 2 S.,  
Co., 380 Madison Ave., R. 9 W.  
New York, N. Y.  
Status: Producing and developing

GRANITE COUNTY: Philipsburg, County Seat

DOUGLAS CREEK MINE Maxville dis-  
Operator: Montana Phosphate Products Co., trict, T. 9 N.,  
Garrison, Montana R. 12 W.  
Owner: Same as operator  
Employees: 40  
Status: Developing

PHOSPHATE MINES, cont'd.

POWELL COUNTY: Deer Lodge, County Seat

ANDERSON MINE

Operator: Montana Phosphate Products Co.,  
Garrison, Montana  
Owner: Same as operator  
Employees: 140  
Status: Producing

Garrison district,  
sec. 3, T. 10 N.,  
R. 10 W.

BROCK MINE

Operator: Montana Phosphate Products Co.,  
Garrison, Montana  
Owner: Same as operator  
Employees: 60  
Status: Producing

Garrison district,  
sec. 21 and 22,  
T. 10 N.,  
R. 10 W.

GIMLET MINE

Operator: Montana Phosphate Products Co.,  
Garrison, Montana  
Owner: Same as operator  
Employees: 4  
Status: Producing

Garrison district,  
sec. 4, T. 10 N.,  
R. 9 W.

JACK PINE (TROUT CREEK) MINE

Operator: Russell B. Luke,  
1021 East Front St., Butte, Montana  
Owner: Same as operator  
Status: Developing

Elliston dis-  
trict, SW $\frac{1}{4}$  sec.  
35, T. 11 N.,  
R. 7 W.

LUKE MINE

Operator: Montana Phosphate Products Co.,  
Garrison, Montana  
Owner: Same as operator  
Employees: 40  
Status: Producing

Garrison dis-  
trict, sec. 14  
and 15, T. 10  
N., R. 9 W.

RELYEA MINE

Operator: George Relyea, Box 85,  
Garrison, Montana  
Owner: Same as operator  
Mill capacity: 300 t/d  
Employees: 40  
Status: Producing and developing

Garrison dis-  
trict, S $\frac{1}{2}$  sec.  
12, T. 10 N.,  
R. 10 W.





STONE (BUILDING) MINES AND QUARRIES, cont'd.

MISSOULA COUNTY: Missoula, County Seat

BONNER QUARRY granite Sec. 15, T. 13 N.,  
Operator: Chicago, Milwaukee, R. 18 W.  
St. Paul, and Pacific Railway  
Co., Deer Lodge, Montana  
Owner: Same as operator  
Status: Producing

McQUARRIE QUARRY railroad Clinton (Wallace)  
Operator: Lyon Construction ballast, district, sec. 17,  
Co., Clinton, Montana road metal T. 12 N., R.  
Owner: Northern Pacific 17 W.  
Railway Co., St. Paul, Minnesota  
Mill capacity: 1,500 t/d  
Employees: 20  
Status: Producing

STONE (ORNAMENTAL) QUARRIES

FERGUS COUNTY: Lewistown, County Seat

PARADISE RANCH QUARRY travertine Sec. 13, T. 17  
Operator: Montana Stone, Inc., N., R. 17 E.  
2301 Tenth Ave. S.,  
Great Falls, Montana  
Owner: Same as operator  
Employees: Approx. 15  
Status: Developing

MADISON COUNTY: Virginia City, County Seat

WHITE ANGEL QUARRY onyx marble Tidal Wave dis-  
Operator: Norman Rogers, trict, sec. 27,  
Box 1719, Helena, Montana T. 3 S., R. 5 W.  
Owner: American Chemet Corp.,  
Sheridan, Montana  
Employees: 4  
Status: Producing

PARK COUNTY: Livingston, County Seat

GARDINER TRAVERTINE QUARRY travertine Sec. 14 and 24,  
Operator: Livingston Marble T. 9 S., R. 8 E.  
and Granite Works,  
Livingston, Montana  
Owner: Same as operator  
Employees: 12  
Status: Producing

TALC MINES

BEAVERHEAD COUNTY: Dillon, County Seat

CRESCENT MINE talc  
 Operator: Tri-State Minerals  
 Co., Box 227, Dillon, Montana  
 Owner: Same as operator  
 Status: Developing

CROWN-SMITH-DILLON MINE talc  
 Operator: Tri-State Minerals  
 Co., Box 227, Dillon, Montana  
 Owner: Clyde Smith,  
 Dillon, Montana  
 Mill capacity: 3,300 t/y  
 Employees: 5  
 Status: Producing

Axes Creek dis-  
 trict, sec. 23,  
 T. 8 S., R. 8 W.

MADISON COUNTY: Virginia City, County Seat

BEAVERHEAD MINE talc  
 Operator: Sierra Talc Co.,  
 Box 390, 1608 Huntington Dr.,  
 South Pasadena, California  
 Status: Developing

Stone Creek dis-  
 trict

REBISH AND IKE MINE talc  
 Operator: American Chemet  
 Corp., East Helena, Montana  
 Owner: Same as operator  
 Employees: 4  
 Status: Producing

Sweetwater dis-  
 trict, sec. 7,  
 T. 8 S., R. 6  
 and 7 W.

REGAL MINE talc  
 Operator: Tri-State Minerals  
 Co., Box 227, Dillon, Montana  
 Owner: Same as operator  
 Mill capacity: 500 t/y  
 Status: Producing

Sweetwater dis-  
 trict, N $\frac{1}{2}$  sec.  
 2, T. 8 S.,  
 R. 7 W.

RUBY MINE talc  
 Operator: American Chemet  
 Corp., East Helena, Montana  
 Owner: Same as operator  
 Status: Inactive

Willow Creek  
 district, sec.  
 20 and 29, T.  
 8 S., R. 3 W.

RUBY NO. 1 AND NO. 2 MINE talc  
 Owner: Sam Maloney and  
 Bill Pettus, Box 174,  
 Alder, Montana  
 Status: Developing

Warm Springs  
 district, sec.  
 11, T. 8 S.,  
 R. 4 W.

TALC MINES, cont'd.

MADISON COUNTY, cont'd.

<p>RUBY VIEW MINE          Operator: Claude H. Brown,          Box 102, Dillon, Montana          Owner: Sierra Talc Co., Box 390,          South Pasadena, California          Status: Unknown</p>	<p>talc</p>	<p>Stone Creek dis-          trict, sec. 14,          T. 7 S., R. 6 W.</p>
<p>SNOW WHITE MINE          Operator: Claude H. Brown,          Box 102, Dillon, Montana          Owner: Sierra Talc Co., Box 390,          South Pasadena, California          Status: Unknown</p>	<p>talc</p>	<p>Stone Creek-          Spring Creek dis-          trict, sec. 3,          T. 7 S., R. 8 W.</p>
<p>TREASURE STATE MINE          Operator: Tri-State Minerals          Co., Box 227, Dillon, Montana          Owner: Same as operator          Mill capacity: 20,000 t/y          Employees: 6          Status: Producing</p>	<p>talc</p>	<p>Stone Creek dis-          trict, NE<math>\frac{1}{4}</math>NE<math>\frac{1}{4}</math>          sec. 15, T. 7 S.,          R. 6 W.</p>
<p>YELLOWSTONE (CAMERON) MINE*          Operator: Sierra Talc Co.,          Box 390, South Pasadena,          California          Owner: Same as operator          Employees: 9 to 18          Status: Producing</p>	<p>talc</p>	<p>Johnny Gulch dis-          trict, sec. 4,          T. 9 S., R. 1 W.</p>

VERMICULITE MINES

LINCOLN COUNTY: Libby, County Seat

<p>VERMICULITE MOUNTAIN MINE*          Operator: Zonolite Co.,          135 S. LaSalle St.,          Chicago, Illinois          Owner: Same as operator          Mill capacity: 3,000 t/d          Employees: 130          Status: Producing</p>	<p>vermiculite</p>	<p>Rainy Creek dis-          trict, sec. 14,          15, 22, and 23,          T. 31 N., R. 30 W.</p>
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MADISON COUNTY: Virginia City, County Seat

<p>GILLIAM MINE*          Operator: Cellestia R. Gilliam,          Cardwell, Montana          Owner: Same as operator          Status: Inactive</p>	<p>vermiculite</p>	<p>Pony district,          sec. 26, T. 1 S.,          R. 3 W.</p>
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\*Open pit.



A D D I T I O N A L M I N E S (Information received late)

Information on the following mines was received too late to be included under their proper headings:

CARBON COUNTY: Red Lodge, County Seat

JAY KAY MINE	gypsum	Unorganized dis-
Operator: Jay Kay, Inc.,		trict, NE $\frac{1}{4}$ SE $\frac{1}{4}$
607 Garden Ave.,		sec. 19, T. 7 S.,
Billings, Montana		R. 24 E.
Owner: Same as operator		
Status: Developing		

JEFFERSON COUNTY: Boulder, County Seat

POTEE MINE	molybdenum	Warm Springs dis-
Operator: R. D. Potee and		trict, sec. 13,
Associates, Box 95,		23, and 24,
Clancy, Montana		T. 8 N., R. 3 W.
Owner: Same as operator		
Employees: 1		
Status: Developing		

JUDITH BASIN COUNTY: Stanford, County Seat

TIGER MINE	gold,	Barker district,
Operator: Croff and Montague,	silver,	sec. 5 and 6,
Box 69, Monarch, Montana	lead,	T. 15 N.,
Owner: Clendennin Mines, Inc.,	zinc	R. 9 E.
c/o John T. Nightengale,		
Boston, Massachusetts		
Employees: 2		
Status: Producing and developing		

LEWIS AND CLARK COUNTY: Helena, County Seat

STEMPLE GOLD MINE	gold,	Stemple dis-
Operator: Vern C. Knof,	silver	trict, sec. 10,
Box 138, Lincoln, Montana		T. 13 N., R. 7 W.
Owner: Same as operator		
Mill capacity: 15 t/d		
Employees: 1		
Status: Developing		

MEAGHER COUNTY: White Sulphur Springs, County Seat

CUMBERLAND MINE	silver,	Castle Mountain
Operator: HOCO, Inc.,	lead	district, sec.
c/o Clarence Oliphant, Box 0,		14, T. 8 N.,
White Sulphur Springs, Montana		R. 8 E.
Owner: HOCO, Inc.,		
Lenep, Montana		
Employees: 3 to 10		
Status: Producing		



S U P P L E M E N T A L L I S T O F M I N I N G  
E N T E R P R I S E S

This list includes mining enterprises that have been inactive for three or more years or that have not returned our questionnaires. The abbreviations used to describe their former status are A, active; D, developing; I, inactive; P, producing; and U, unknown.

BEAVERHEAD COUNTY

Amazon	P 1961
Blackstone	I 1961
Calvert	I 1963
Carter Creek	I 1962
Charter Oak	D 1961
Cleve	P 1962
GOB	I 1961
Harrison	A 1962
Hendricks	I 1963
Idanha	U 1963
Jack	I 1962
Jackson	D 1962
Knight	U 1963
Maiden Rock	P 1962
May Day	D 1961
Midnight dump	A 1962
Moose Horn	D 1961
Sparkle	U 1961
Three Acres	A 1962
Tuscarora	I 1961
White Lime	D 1961

BROADWATER COUNTY

Custer Hyantha	I 1961
East Pacific	U 1962
Erickson 1, 2, & 3	D 1961
Green & Waddel placer	I 1961
Indian Creek graphite	D 1962
Kleinschmidt	I 1963
Marietta	I 1962
Miller Slim Jim	P 1962
Palmer Engh placer	U 1961
Santa Anita	I 1960

CARBON COUNTY

Bice	U 1962
Cole Creek quarry	I 1962
Old Glory	U 1961
Sandra	I 1961

CASCADE COUNTY

Big Ben	I 1962
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DEER LODGE COUNTY

4-Some	I 1961
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FERGUS COUNTY

Big Push	D 1962
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FLATHEAD COUNTY

O. F. Martin	D 1962
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GRANITE COUNTY

Climax	A 1962
Gold King	I 1962
Gypsy Queen	I 1963
Jackie Marie	U 1962
Jefferson	A 1962
Little Emma	D 1962
M & T	D 1962
Maywood placer	D 1962
Middle Fork	U 1962
Mystery	I 1961
Non-Pariell	I 1962
Potosi Lode dump	A 1962
Senate	U 1963
Thumper Lode No. 1	U 1962

JEFFERSON COUNTY

Big Jim	D 1962
Crescent	I 1962
Daily West	U 1961
Eidelweiss	A 1962
Fourth & Fifth July	I 1962

SUPPLEMENTAL LIST OF MINING ENTERPRISES--cont'd.

JEFFERSON COUNTY, cont'd.

Greater Mountain	I 1961
Hope and Bullion	D 1962
Lincoln	A 1962
Meadow	I 1962
Montreal Star	I 1962
Nancy	A 1962
Obelisk	I 1962
Poor Boy	U 1963
Ruby	D 1962
Union	I 1963
Uranium	D 1962

JUDITH BASIN COUNTY

Bell	D 1961
Doctor Kallock	I 1962
Willow Creek	I 1962
Yogo Sapphire	I 1962

LEWIS AND CLARK COUNTY

Black Watch	P 1962
Crystal	I 1962
Discovery & Margurete	I 1962
Gruell Bar	A 1962
Jay Gould	A 1962
Little Sampson	I 1961
Mike Horse	P 1962
Nick and Dick	P 1961
Paymaster	D 1961
Pearl	I 1962
Peck Mill	A 1962
Rosetta (Rosenfield)	D 1961
Silver Crescent	I 1962
Silver Cross	U 1963

LIBERTY COUNTY

Whitlash	I 1962
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LINCOLN COUNTY

Gloria	D 1962
Highland Silver	I 1962
Morning Glory	I 1962
North Star Group	I 1962
St. Paul	U 1961
Snowshoe	U 1961
Way Up	I 1962
West Fisher and Miller placer	I 1961

MADISON COUNTY

Apex	D 1962
Cabin and Cornucopia	I 1963
Clancy	U 1961
Colorado	U 1961
Fairview	I 1962
El Fleeda	I 1962
Garnet	I 1963
German Bar	A 1962
Green Campbell	I 1963
Leadora	U 1961
Liberty Montana	U 1962
Mountain Flower	A 1962
Nichols	I 1963
Pika Gypsum	D 1962
Pollinger	D 1961
Silver Bell	D 1962
Sparrow Placer	D 1961
West Mayflower	I 1961

MEAGHER COUNTY

Black Hawk	I 1963
Copperopolis	I 1963
Maxine	I 1961
Maybe	I 1963
Yellowstone	I 1963

MINERAL COUNTY

Dutchman	A 1962
Gildersleeve	D 1961

SUPPLEMENTAL LIST OF MINING ENTERPRISES--cont'd.

MISSOULA COUNTY

Coloma	I 1963
Crystal Springs	I 1961
Dixie	A 1962
Hidden Treasure	I 1963
LaChambre placer	I 1961
Mongar	U 1961

PARK COUNTY

Nebraska 1 and 2 placer	I 1962
Republic and Black Rock	I 1963
Sin Nombre	D 1961

PHILLIPS COUNTY

Blue Rock placer	I 1963
Hawkeye	D 1961
Jack Deuce	I 1962
Lucky Maud placer	D 1961

POWELL COUNTY

Bonanza	I 1961
C. D. Hurd placer	I 1962
Cyclone	D 1962
Hardrock placer	I 1961
Hobby Horse	I 1963
Jefferson Gulch	P 1961
Julia, Lilly, and Copper King	I 1963
Ophir	I 1963
Nancy Helen	D 1962
Northern Pacific and Silver Reef	D 1962

RAVALLI COUNTY

Darkstar	I 1961
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SANDERS COUNTY

Holiday	I 1962
Jack Waite	P 1962
Montana Premier	A 1962
Sales	I 1961
State Group	D 1961

SILVER BOW COUNTY

Adelaid and Mat	I 1963
Carlu-Pauline	A 1962
Jane Claim	A 1962
Jewel	U 1961
Little Acre placer	I 1963

SWEET GRASS COUNTY

Half Moon	U 1961
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P A R T 3, C O A L M I N E S

STATE COAL MINE INSPECTOR'S ANNUAL REPORT

Coal production in the State of Montana for the fiscal year July 1, 1962, to June 30, 1963, with 35 mines reporting was 364,358 tons as compared with 403,643 tons for the previous year.

The Roundup Mining Company's mine, one mile west of Roundup, closed in June 1962, which accounts for the decrease in production.

There were no fatalities in the Montana coal mines and 9 reportable injuries.

No examination for mine foreman's certificates was held during this year.

Production statistics and a list of the coal mines in Montana will be found on the following pages.

S/ Thomas Morgan  
State Coal Mine Inspector



TABLE 1.--Production report, Montana coal mines,  
July 1962 - June 1963.

<u>Mines by county</u>	<u>Ave. no.</u> <u>employees</u>	<u>Total days</u> <u>worked</u>	<u>Tonnage</u> <u>mined</u>	<u>Accidents</u>	
				<u>fatal</u>	<u>nonfatal</u>
<u>BLAINE</u>					
Milk River mine	6	125	2,870	0	0
<u>BIG HORN</u>					
Tongue River Coal Co.	2	95	1,000	0	0
<u>CARBON</u>					
Smith Coal Docks	8	200	8,388	0	2
Roadside mine	2	100	428	0	0
Brophy Coal Co.	9	135	5,060	0	3
<u>CASCADE</u>					
Canyon	2	40	216	0	0
Loveland mine	1	65	400	0	0
East Belt mine	2	120	1,293	0	0
<u>CUSTER</u>					
Storm King mine	2	112	2,609	0	0
Moon Creek mine	1	35	900	0	0
<u>DAWSON</u>					
Peuse mine	1	120	1,026	0	0
Albrecht mine	2	90	750	0	0
<u>FERGUS</u>					
Swanson mine	1	110	86	0	0
Tuss mine	2	100	750	0	0
<u>HILL</u>					
Rocky Boy mine	3	68	650	0	0
<u>McCONE</u>					
No. 1 mine	2	50	468	0	0
<u>MUSSELSHELL</u>					
Divide mine	3	140	8,313	0	1
Gildroy mine	3	98	3,859	0	0
Forstrom mine	5	106	3,700	0	0
Johnny's mine	3	114	1,436	0	0
Nies mine	5	180	5,141	0	0
Square Deal mine	7	122	7,906	0	0
P & M mine	2	120	1,568	0	0
Western Coal Co.	3	130	2,800	0	0

TABLE 1.--Production report, Montana coal mines--cont'd.

<u>Mines by county</u>	<u>Ave. no.</u> <u>employees</u>	<u>Total days</u> <u>worked</u>	<u>Tonnage</u> <u>mined</u>	<u>Accidents</u>	
				<u>fatal</u>	<u>nonfatal</u>
<u>POWDER RIVER</u>					
Coal Creek mine	2	141	1,200	0	0
Wilson mine	2	6	10	0	0
Two Tree mine	3	5	60	0	0
<u>ROSEBUD</u>					
Lame Deer Mining Co.	3	120	1,200	0	0
Foley Bros.	3	30	730	0	0
<u>RICHLAND</u>					
Bemer mine	4	87	1,000	0	0
Coal Bank Canyon	2	80	900	0	0
Knife River Co.	15	247	292,476	0	3
Thiell Bros. mine	3	108	1,463	0	0
<u>SHERIDAN</u>					
Acme Coal mine	5	155	2,216	0	0
Lagerquist mine	2	110	796	0	0

LIST OF MONTANA COAL MINES ACTIVE IN 1963

by

Thomas Morgan  
State Coal Mine Inspector

BIG HORN COUNTY

SPRING CREEK MINE  
Henry Yallowizer,  
Decker, Montana

BLAINE COUNTY

MILK RIVER COAL CO.  
Lauren Sargent,  
Box 661,  
Havre, Montana

ROCKY BOY MINE  
Gordon Michaelson,  
Chinook, Montana

CARBON COUNTY

BROPHY COAL CO.  
James Brophy,  
Red Lodge, Montana

ROADSIDE COAL CO.  
Frank Janskovich,  
Bearcreek, Montana

SMITH COAL DOCKS  
Samuel Carpenter,  
Red Lodge, Montana

CASCADE COUNTY

CANYON COAL CO.  
Albert Korin,  
Sand Coulee, Montana

EAST BELT MINE  
Sam Williamson,  
Belt, Montana

LATHAM COAL MINE  
Dennis Yatsko,  
Stockett, Montana

CASCADE COUNTY, cont'd.

LOVELAND COAL MINE  
Mrs. Earl Loveland,  
Great Falls, Montana

CUSTER COUNTY

MOON CREEK MINE  
Henry Freeze,  
Miles City, Montana

STORM KING MINE  
T. J. Fleming,  
Miles City, Montana

DAWSON COUNTY

ALBRECHT MINE  
Jacob Albrecht,  
Bloomfield, Montana

PEUSE COAL MINE  
Gordon Peuse,  
Lindsay, Montana

FERGUS COUNTY

SWANSON MINE  
William Swanson,  
Lewistown, Montana

TUSS MINE  
C. M. Tuss,  
Lewistown, Montana

McCONE COUNTY

MAGNUSON MINE  
Albert Neumiller,  
Vida, Montana

LIST OF MONTANA COAL MINES ACTIVE IN 1963, cont'd.

McCONE COUNTY, cont'd.

NO. 1 MINE  
R. D. Stevenson,  
Vida, Montana

MUSSELSHELL COUNTY

DIVIDE COAL CO.  
Victor Carlson,  
Roundup, Montana

FORSTROM COAL CO.  
Victor Forstrom,  
Roundup, Montana

JOHNNY'S COAL MINE  
John Keosky,  
Roundup, Montana

NIES COAL MINE  
William Nies,  
Roundup, Montana

SQUARE DEAL CO.  
Virgil Cross,  
Roundup, Montana

WESTERN COAL CO.  
Glen H. Johnson,  
Roundup, Montana

POWDER RIVER COUNTY

COAL CREEK MINE  
John Schoonover,  
Volborg, Montana

TWO TREE MINE  
Antone Gali,  
Epsie, Montana

WILSON MINE  
J. L. Wilson,  
Broadus, Montana

RICHLAND COUNTY

BEMER COAL MINE  
Joe Bemer,  
Culbertson, Montana

COAL BANK CANYON  
Cyrus Lowery,  
Box 882,  
Sidney, Montana

KNIFE RIVER COAL CO.  
Knife River Coal Co.,  
Savage, Montana

THIELL BROS. COAL CO.  
Thiell Bros. Coal Co.,  
Box 586,  
Sidney, Montana

ROSEBUD COUNTY

FOLEY BROS., INC.  
O. E. Rye,  
Coalstrip, Montana

LAME DEER MINING CO.  
Lester Scott,  
Lame Deer, Montana

SHERIDAN COUNTY

ACME MINE  
M. F. Brenteson,  
Coalridge, Montana

LAGERQUIST COAL MINE  
E. C. Lagerquist,  
R. F. D. 1,  
Westby, Montana



LIST OF MONTANA COAL MINES ACTIVE IN 1963, cont'd.

YELLOWSTONE COUNTY

ANTELOPE MINE

Joseph Birrer,  
Billings, Montana

GILDROY COAL MINE

R. J. Gildroy,  
Box 734,  
Billings, Montana

P. M. COAL MINE

Paul Meged,  
Box 495,  
Billings, Montana



# MINERAL INDUSTRY SURVEYS

U. S. DEPARTMENT OF THE INTERIOR  
BUREAU OF MINES



Stewart L. Udall, Secretary

Marling J. Ankeny, Director

Area VII Mineral Resource Office  
Mark L. Wright, Area Director

Albany Office of Mineral Resources  
A. J. Kauffman, Jr., Chief

Area Report B-107  
Albany, Oregon

## THE MINERAL INDUSTRY OF MONTANA IN 1963

### Preliminary Annual Report

Mineral production in Montana was valued at \$187.0 million in 1963, a decline of \$3.7 million (2 percent) from 1962, according to a preliminary report by the Bureau of Mines, U.S. Department of the Interior. Copper output dropped 16 percent largely because of production time lost in the transfer of mill equipment from Anaconda to a new concentrator at Butte. The Anaconda Company produced all but 700 tons of the State's copper output. Zinc production dropped 5,000 tons due to reduced output from the Badger State mine at Butte and the cessation of zinc mining by Trout Mining Co. and Taylor-Knapp Co. in the Philipsburg area. Lead production, mainly a byproduct of zinc mining, declined 19 percent below the 1962 total. A decline in silver output from copper and zinc ores was accompanied by a rise in value due to an increased market price for silver.

Preliminary data indicated that recovery of crude oil declined to 31.0 million barrels valued at \$75.2 million, compared with 31.6 million barrels worth \$76.7 million in 1962.

Sand and gravel production was increased to supply greater quantities for the State highway department in road construction and maintenance.

Crude oil, copper, and sand and gravel supplied 78 percent of the State total value of mineral production.

At the end of 1963, construction of the new 42,000-ton-per-day Butte concentrator adjacent to the Berkeley pit was nearly completed. Plans for further expansion in Montana by The Anaconda Company were disclosed when the company announced late in the year that it would expand the annual capacity of the Columbia Falls primary aluminum plant from 67,500 tons to 100,000.

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Prepared by F. B. Fulkerson, Economist, A. J. Kauffman, Jr.,  
Chief, and R. W. Knostman, Geologist, Bureau of Mines, Area VII,  
Albany, Oregon, December 17, 1963.

TABLE 2. - Mineral production in Montana 1/

Mineral	1962		1963 2/	
	Quantity	Value (thousands)	Quantity	Value (thousands)
Clays 3/	56	\$77	55	\$76
Coal: (Bituminous and lignite)	382	1,140	360	1,030
Copper (recoverable content of ores, etc.)	94,021	57,917	79,109	48,731
Gold (recoverable content of ores, etc.)	24,387	854	17,353	607
Iron ore (usable)	9	62	13	90
Lead (recoverable content of ores, etc.)	6,121	1,126	4,946	1,088
Lime	104	1,049	98	1,104
Manganese ore and concentrate (35 percent or more Mn)	24,758	4/	4/	4/
Manganiferous ore and concentrate (5 to 35 percent Mn)	2,264	29	3,273	38
Natural gas	29,955	2,217	31,000	2,300
Petroleum (crude)	31,648	76,690	30,950	75,210
Sand and Gravel	18,473	17,642	23,200	22,400
Silver (recoverable content of ores, etc.)	4,561	4,948	4,175	5,339
Stone	996	1,708	2,900	5,000
Zinc (recoverable content of ores, etc.)	37,678	8,666	32,611	7,761
Value of items that cannot be disclosed: Barite, cement, fluorspar, gem stones, gypsum, mica (1962), natural gas liquids, peat, phosphate rock, talc, thorite concentrate, tungsten (1962), uranium ore, vermiculite, and values indicated by footnote 4....		16,532		16,228
Total		190,657		187,002

1/ Production as measured by mine shipments, sales, or marketable production (including consumption by producers).  
 2/ Preliminary figures.

3/ Excludes fire clay; included with "Value of items that cannot be disclosed".

4/ Figure withheld to avoid disclosing individual company confidential data.



In March Permanente Cement Co. completed construction of its \$10-million cement plant at Montana City in Lewis and Clark County. Most of the initial output was used at the Yellowtail Dam on the Big Horn River. Montana Phosphate Products Co. began construction of a \$6-million phosphate-rock beneficiation plant at Hall, Granite County.

The U. S. Geological Survey, in collaboration with the Montana Bureau of Mines and Geology, prepared a survey of the mineral and water resources of Montana. 1/

Average monthly employment in the Montana mining industry was 7,400 for the first 10 months of 1963 (November-December figures are not available), compared with 6,900 for the comparable period in 1962. The increase was due to approximately equal gains in metal and nonmetal mining. Average monthly employment in petroleum and natural gas production and petroleum refining was the same as in 1962, while the number of workers in primary metals industries was less than in the preceding year, according to the Montana Labor Market.

TABLE 3. - Estimated average monthly employment, thousands

	First 10 months 1961	First 10 months 1962	First 10 months 1963 <u>1/</u>	Change 1962-63, percent
Mining.....	7.1	6.9	7.4	+7
Metal mining.....	4.2	3.9	4.1	+5
Quarrying and nonmetallic mining, including coal.....	0.7	0.7	0.9	+29
Petroleum and natural gas production.....	2.2	2.3	2.3	0
Manufacturing.....	20.2	21.7	22.2	+2
Lumber and timber products.....	7.5	7.9	8.6	+9
Primary metals.....	3.6	3.6	3.2	-11
Petroleum refining.....	1.0	1.1	1.1	0
Contract construction.....	11.3	12.4	12.3	-1
Transportation and utilities.....	18.4	18.1	17.9	-1
All non-agricultural industries.....	167.0	169.8	172.5	+2

1/ Preliminary

Source: Montana Labor Market, State Employment Service.

1/ U.S. Geol. Survey, Mineral and Water Resources of Montana. Prepared for the Committee on Interior and Insular Affairs, U. S. Senate. Montana BuMines and Geol. Special Publication 28, 1963, 166 pp.



## REVIEW BY MINERAL COMMODITIES

### METALS

Aluminum. - Anaconda Aluminum Co. operated its Columbia Falls primary aluminum plant at capacity (approximately 67,500 tons annually) for the second consecutive year. In August the company announced plans for a multi-million-dollar program to increase the annual plant capacity to 100,000 tons. The expansion program, scheduled for completion in 1965, was expected to raise employment from 590 to over 800.

At Anaconda, Deer Lodge County, The Anaconda Company alumina-from-clay pilot plant produced at a rate of about 5 tons per day. This alumina was processed to aluminum at the Columbia Falls plant on a trial basis. The aluminum derived from clay was reported to be comparable with bauxite-derived aluminum.

Copper. - Production of copper dropped approximately 16 percent, because of interruptions resulting from the transfer of equipment from The Anaconda Company mill at Anaconda to the new Butte concentrator, and because of continued emphasis on large-scale development, rather than production, at company mines in the Silver Summit (Butte) mining district. The Anaconda Company produced all but 700 tons of the State total. Production from the Butte concentrator began in September, and during the remainder of the year milling operations were conducted both at Anaconda and Butte. Upon completion of the new plant, scheduled for January 1964, milling of copper ore at Anaconda was to be terminated.

At yearend, construction of the 42,000-ton-per-day Butte concentrator, adjacent to the Berkeley pit, was nearly completed and two of the three divisions of the plant were in operation. The concentrating and auxiliary facilities included 14 buildings, ore storage bins, a tailings disposal area with facilities for water reclamation, underground and overhead conveyor systems, 12 autogenous crushers and 12 grinding mills, flotation cells, 8 thickeners, a water pipeline from the Anaconda Reduction Works, a 10-million-gallon water reservoir, and a new railroad line. The plant was designed for possible expansion to 56,000 tons per day should increased output become warranted. When operating at capacity, about 15 million gallons of fresh water and 30 million gallons of reclaimed water per day were expected to be used.

Concentrate from the Butte mill, containing 28-30 percent copper, was shipped in tank cars to the Anaconda Reduction Works via the Butte, Anaconda and Pacific Railway. Each tank car carried 100 tons of concentrate slurry containing 70 percent solids. On the return trip to Butte, milk of lime used in the flotation process was hauled from the company lime plant at the reduction works.

TABLE 4. - Mine production of gold, silver, copper, lead, and zinc, in terms of recoverable metals <sup>1/</sup>

Year	Mines producing		Material sold or treated <sup>2/</sup> (thousand short tons)	Gold (lode and placer)		Silver (lode and placer)		Total value (thousands)
	Lode	Placer		Troy ounces	Value (thousands)	Troy ounces (thousands)	Value (thousands)	
	Short tons	Value (thousands)	Short tons	Value (thousands)	Short tons	Value (thousands)	Short tons	Value (thousands)
1954-58 (average) ..	83,902	\$56,120	14,445	\$4,153	56,764	\$13,572	56,764	\$79,924
1959.....	65,911	40,469	7,672	1,765	27,848	6,405	27,848	52,734
1960.....	91,972	59,046	4,879	1,142	12,551	3,238	12,551	68,298
1961.....	104,000	62,400	2,643	544	10,262	2,360	10,262	69,770
1962.....	94,021	57,917	6,121	1,126	37,678	8,666	37,678	73,511
1963 <sup>3/</sup> .....	79,109	48,731	4,946	1,088	32,611	7,761	32,611	63,527

<sup>1/</sup> Includes recoverable metal content of gravel washed (placer operations); ore milled, old tailings and old slag re-treated, copper precipitates and ore shipped to smelters during the calendar year indicated. Owing to rounding, individual items may not add to totals.

<sup>2/</sup> Does not include gravel washed.

<sup>3/</sup> Preliminary figures. Gold value calculated at U.S. Treasury buying price of \$35 a troy ounce, and silver at a preliminary average price of \$1.279 a troy ounce. In calculating production values for copper, lead, and zinc preliminary average prices in 1963 per pound of refined metal were used, as follows: Copper, \$0.308; Lead, \$0.11; Zinc, \$0.119.



TABLE 5. - Mine production of gold, silver, copper, lead, and zinc in 1963,  
by months, in terms of recoverable metals

Month	Gold (troy ounces)	Silver (troy ounces)	Copper (short tons)	Lead (short tons)	Zinc (short tons)
January.....	1,344	271,374	6,538	383	2,178
February.....	1,454	288,047	5,674	336	2,329
March.....	1,494	330,717	5,997	457	2,798
April.....	1,309	379,688	6,407	558	3,027
May.....	1,500	339,146	6,173	396	2,640
June.....	993	332,044	5,289	354	2,293
July.....	1,281	349,052	5,242	496	2,660
August.....	1,372	378,735	5,743	446	3,215
September.....	1,318	341,939	7,209	322	2,579
October.....	1,848	403,821	8,295	440	3,250
November.....	1,720	380,000	8,271	378	2,832
December.....	1,720	380,000	8,271	380	2,810
Total....	17,353	4,174,563	79,109	4,946	32,611

TABLE 6. - Mine production of gold, silver, copper, lead, and zinc in  
Silver Bow County, in terms of recoverable metals

Year	Mines producing		Material sold or treated (thousand short tons)	Gold, lode and placer (troy ounces)	Silver, lode and placer (thousand troy ounces)
	Lode	Placer			
1954-58 (average).....	21	1	8,592	23,095	5,078
1959.....	15	1	8,679	18,615	3,204
1960.....	11	-	12,169	21,819	2,918
1961.....	11	1	12,635	18,391	2,765
1962.....	9	1	11,654	17,657	4,027
1963 <u>1/</u> .....	11	1	8,795	12,932	3,878

Year	Copper (short tons)	Lead (short tons)	Zinc (short tons)	Total value (thousands)
1954-58 (average).....	83,782	11,189	49,848	\$76,629
1959.....	65,810	4,456	22,459	50,149
1960.....	91,754	1,889	4,755	63,980
1961.....	103,788	435	1,384	65,881
1962.....	93,845	4,319	28,636	70,176
1963 <u>1/</u> .....	78,409	4,529	32,454	62,433

1/ Preliminary figures.

Improved underground mining operations in the Butte district were described. 2/

Gold, - Output of gold declined approximately 7,000 ounces below the 1962 total. For the second consecutive year production was the lowest on record (since 1900). The decline was a result of reduced copper ore output, from which gold was recovered as a byproduct. Approximately 60 percent of the output was a byproduct of copper production by The Anaconda Company.

A number of gold exploration programs was in progress during the year. Merger Mines, Ltd., Toronto, Ontario, explored the William Rogers Wade claims in the Marysvale district, Lewis and Clark County. United Buffadison Mines, Ltd., also of Toronto, conducted exploration and development at the Crystal mine in the Cataract district of Jefferson County. At the Little Ben property in Phillips County, Northern Continental, Inc., completed a long drift to explore the downward extension of ore shoots mined on higher levels and completed other exploration work. Vitro Minerals Corp. obtained leases on 86 mining claims and two sections of State-owned land in the Judith Mountains near Lewistown and planned extensive exploration of the area. Grand Deposit Mining Co. was awarded an \$80,000 Office of Minerals Exploration contract -- \$40,000 to be furnished by the Government -- to search for gold, silver, bismuth, and tellurium in the Bannack district of Beaverhead County.

Iron Ore. - Compared with 1962, production increased 4,163 long tons. The entire output was by Ralls & Harris Bros. from the Iron Cross (9,876 long tons) and Iron Magnet (3,488 long tons) open-pit mines near Radersburg, Broadwater County, for use by the cement industry.

Lead. - Production declined approximately 19 percent below the 1962 total and was mostly as a byproduct of zinc output. The Badger State block-caving operation at Butte and the East Helena slag-fuming operation were the largest lead producers. Lead also was recovered from processing material from various mine dumps and small open pits in the Butte district, from the purchased Government manganese stockpile, and from the Emma mine stockpile.

The Montana Bureau of Mines and Geology published studies of mineral deposits in various areas of the State. 3/ 4/ 5/

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- 2/ O'Leary, V. D. Recent Developments Underground at Butte. Min. Eng., vol. 15, No. 11, November 1963, pp. 39-42.
- 3/ Crowley, F. A. Mines and Mineral Deposits (Except Fuels), Sanders County, Mont. Montana BuMines and Geol. Bull. 34, May 1963, 58 pp.
- 4/ Schell, Elmer M. Ore Deposits of the Northern Part of the Park (Indian Creek) District, Broadwater County, Mont. Montana BuMines and Geol. Bull. 35, June 1963, 47 pp.
- 5/ Kauffman, Marvin E. Geology of the Garnet-Bearmouth Area, Western Montana. Montana BuMines and Geol. Memoir 39, June 1963, 40 pp.



Manganese. - Estimated production of manganese ore and concentrate (35 percent or more Mn) dropped sharply compared with the 1962 output. The reduction was due to decreased shipments from The Anaconda Company and Taylor-Knapp Co. Anaconda processed manganese ore (rhodochrosite,  $MnCO_3$ ) from the Emma mine stockpile and from the Government stockpile which Anaconda purchased in 1962. Taylor-Knapp continued to mine manganese oxide raw material from the Moorlight group near Philipsburg and shipped 3,273 short tons of low-grade manganiferous ore and concentrate (5 to 35 percent Mn) for metallurgical and chemical uses. The Taylor-Knapp Co. was the only domestic producer of manganese dioxide suitable for use in dry-cell batteries.

Silver. - A decline in silver output was accompanied by a rise in value of production due to the increased market price of the metal. Output declined approximately 385,000 ounces while the value rose nearly \$390,000. Copper and zinc ores from Butte mines and miscellaneous shippers to the Anaconda Reduction Works accounted for most of the total.

Exploration and development at the Nancy Lee mine, Mineral County, were continued by The Bunker Hill Co. Development ore was being stockpiled in preparation for the resumption of milling operations. Spokane National Mines, Inc., completed a long exploration adit and other work at the New Departure mine in the Bannack district, Beaverhead County. Operations at the New Departure mine were described. 6/

Thorium. - A small quantity of thorite concentrate was shipped from stockpile by Sawyer Petroleum Co., Los Angeles, Calif. Interest continued in developing thorium-bearing properties in the Lemhi Pass area of Beaverhead County. The Montana State Land Board granted a thorium mining lease on more than 1,200 acres in southwestern Beaverhead County. The State was to receive a royalty of 5 percent of the value of production and a rental fee of \$925 per year (\$0.75 per acre). A study of thorium deposits in the Lemhi Pass area of Idaho and Montana was published. 7/

Uranium. - Production of uranium ore declined approximately 84 percent from that of 1962. Output was very small compared with the record 2,890 short tons mined in 1959. All production was by Pryor Mining Co. from the Old Glory mine, Carbon County.

Zinc. - Output declined 5,000 tons below the 1962 total of 37,678 tons. Reduced production from the Badger State mine, the largest zinc producer in the State, and the idleness of two operations in the Philipsburg area of Granite County -- Trout Mining Co. and Taylor-Knapp Co. -- accounted for the drop in output. The Anaconda slag-fuming operation at East Helena, Lewis and Clark County, produced approximately 8,500 tons from old slag, an increase of about 1,500 tons over the 1962 output.

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6/ Bogert, John R. Revival for Bannack Gold District? Min. World v. 25, No. 11, October 1963, pp 28-29.

7/ Sharp, W. N. and W. S. Cavender. Geology of Thorium-Bearing Deposits in the Lemhi Pass Area, Lemhi County, Idaho, and Beaverhead County, Mont. U. S. Geol. Survey Bull. 1126, (1962) 1963, 76 pp.

In an effort to obtain enough zinc raw material for efficient operations at the Anaconda zinc concentrator and the Great Falls electrolytic zinc plant, The Anaconda Company mined ore from small pits and shipped from several mine dumps in the Butte district. Strip mining was conducted during part of the year at the Orphan Girl and Syndicate pits. Low-grade material was shipped from the Anselmo, Colorado, Orphan Girl, and Otisco (Belmont mine) dumps. Zinc also was recovered from the Government low-grade manganese stockpile purchased in 1962 and from the Emma mine stockpile.

Plans announced in 1962 for constructing a new 4,000 ton-per-day zinc concentrator at Butte, to replace the one at the Anaconda Reduction Works, Anaconda, were shelved.

A shortage of concentrates forced The Anaconda Company to reduce its Great Falls zinc plant operation from seven to six units on April 1,

#### NONMETALS

Asbestos. - Zonolite Division, W. R. Grace & Co., continued operating its pilot mill for recovering short-fiber tremolite asbestos as a coproduct with vermiculite at the Libby, Lincoln County, operation.

Barite. - The quantity and value of barite production were estimated to be 16 percent lower and 18 percent higher, respectively, compared with 1962 totals. Output, mined and ground near Greenough, Missoula County, by Baroid Sales Division, National Lead Co, was marketed mainly as a weighting agent in oil-well-drilling mud.

Cement. - Estimated quantity and value of cement shipments increased sharply.

Storage capacity at the Ideal Cement Co., Montana Division, Trident plant was increased to 300,000 barrels in midsummer with completion of six concrete silos.

Initial cement output was made at the Montana City plant of Permanente Cement Co. (Lewis and Clark County). Construction of the \$10-million facility, which began in April 1962, was completed early in March. Most of the output was used at the Yellowtail Dam on the Big Horn River. Plans were announced to market cement in other areas of Montana, as well as in Wyoming, North Dakota, and Idaho.

Clays. - There was no indication of a change in the clay-mining industry; total output was estimated to be about the same as in 1962. Miscellaneous clay and shale production accounted for most of the total, only a small quantity of fire clay was dug, and no bentonite was produced.



Fluorspar. - Roberts Mining Co. continued to produce fluorspar at its Crystal Mountain mine in Ravalli County. The major consumer, as in past years, was the steel industry.

Gypsum. - There was a small increase in the tonnage and value of gypsum mined compared with totals of the previous year. Fergus County mines of United States Gypsum Co. and Ideal Cement Co. furnished the output.

Lime. - Compared with 1962, lime output was 6 percent lower and value was about 5 percent higher. Limestone was calcined to quicklime in Big Horn, Deer Lodge, Missoula, Powell, Richland, and Yellowstone Counties.

Peat. - There was about 14 percent more peat dug than in 1962. Output was from Ravalli and Lake Counties.

Phosphate Rock. - Output and value of marketable phosphate rock advanced about 2 percent over the 1962 totals. Production came from operations in Beaverhead, Powell, and Silver Bow Counties.

Montana Phosphate Products Co. completed considerable development at its Douglas mine in the Maxville-Philipsburg area of Granite County and began constructing a beneficiation plant near Hall. The company, a subsidiary of Consolidated Mining & Smelting Co. of Canada, Ltd., Trail, British Columbia, planned to spend \$6 million on the project. Work at the mine consisted of driving five adits to gain access to the phosphate-bearing strata. At the plant, which was to have an annual capacity of 300,000 tons of 31 percent ( $P_2O_5$ ) concentrate, rock trucked from the mine was to be beneficiated by a flotation process and then shipped to Trail and Kimberly in closed-hopper rail cars.

Rocky Mountain Phosphates, Inc., began making a defluorinated phosphate product at its new Garrison plant for use as a feed supplement for livestock and poultry. The company formerly operated a similar plant at Butte.

Sand and Gravel and Stone. - Combined tonnage and value of these commodities increased from 19.5 million tons and \$19.4 million, respectively, in 1962 to 26.1 million tons and \$27.4 million. Most of the advance was attributed to larger quantities used by the State highway department for road construction and maintenance.

Sulfur. - Production and shipments of high-purity elemental sulfur were higher than in 1962. Montana Sulphur & Chemical Co., the sole producer, used hydrogen sulphide from two refineries in the Billings area as the raw material in the recovery process.



Talc. - There was a 22- and 25-percent increase, respectively, in the quantity and value of talc output. Four companies accounted for the production, most of which was ground at mills in Beaverhead, Gallatin, and Lewis and Clark Counties.

Sierra Talc Co. continued its grinding plant modernization program at Three Forks.

Vermiculite. - There was an increase of about 8 percent in the tonnage of crude vermiculite mined by Zonolite Division, W. R. Grace & Co. at its open pit in Lincoln County. This mine continued to be the principal source of vermiculite in the Nation.

#### MINERAL FUELS

Coal. - Production of bituminous coal and lignite was 360,000 tons, 22,000 tons less than in 1962. Musselshell County was the major source of the bituminous coal output, whereas most of the lignite was mined in Richland County.

Petroleum and Natural Gas. - Preliminary data indicated that recovery of crude oil declined to 31.0 million barrels valued at \$75.2 million, compared with 31.6 million barrels worth \$76.7 million in 1962.

Marketed production of natural gas increased to 31.0 billion cubic feet from 30.0 billion in 1962.

Drilling activity continued at a brisk pace during the year. Discoveries were reported from Sheridan, Richland, Roosevelt, and McCone Counties in the Williston Basin and also from Liberty, Carbon, Wheatland, Glacier, and Toole Counties. There also was activity in the Powder River Basin area, as the result of a Pennsylvanian discovery in Wyoming; however, none of the ventures in the area was successful.

Wildcat wells in the Clarks Fork field (Carbon County) and Vida field (McCone County) yielded both oil and gas. Other new gas wells were discovered in the Mt. Lilly field, Liberty County, about a mile south of a producer in the Flat Coulee field; in an unnamed field in Wheatland County, 4 miles south of Shamut and 17 miles northwest of the nearest production in the Big Coulee field (Golden Valley County); and in an area of Glacier County about a mile west of the Reagan field.

The discovery oil well in Sheridan County was the northernmost producer on the eastern side of the State. Nearest production was 14 miles to the south, and the Outlook field was 26 miles southwest. In Roosevelt County initial output came from the Shotgun Creek field and from a well in the Tule Creek area. Devonian and Ordovician production was reported from a new well

in Richland County, 18 miles northwest of the Brorson field. Crude oil was recovered from the Sunburst member of the Kootenai formation (Cretaceous) in the newly named Fred and George Creek field, Toole County.

The Montana Oil and Gas Conservation Commission approved three new waterflooding projects and expansion of another. The new projects involved areas of the Cut Bank field, Glacier County, and the Kevin-Sunburst field, Toole County. Expansion of Sun Oil's waterflood project in the Cabin Creek field was expected to result in recovery of an additional 12.4 million barrels of crude oil.

The privilege license tax pertaining to the production of oil and natural gas within the State of Montana was increased, effective July 1, 1963, to the following: (1) \$.0025 per barrel for leases producing an average of 25 barrels per day or less; (2) \$.005 per barrel for leases producing an excess of 25 barrels per day; (3) 1 mill per 10,000 cubic feet of natural gas.

Work was begun to increase the crude-charge capacity of the Continental Oil Co. Billings plant from 17,000 to 32,000 barrels per day. Refinery products will be moved from Billings to Sinclair, Wyo., via a planned 8-inch, 330-mile pipeline. Estimated cost of the line was \$7 million.

Construction began on a 75-mile gathering and transmission system to connect the Flat Coulee, Whitlash, West Whitlash, and Fred and George Creek fields to Cut Bank outlets. Restrictions of operations caused by severe winter weather would be relieved permitting year-round operations. The system was designed for a capacity of 5,000 barrels of crude oil per day.

This report summarizes mineral industry activity in Montana in 1963 and contains preliminary production data for the year as estimated from company monthly and quarterly production canvasses, smelter and Government purchase depot receipt reports, and information contained in industry publications. Final production totals for the State's mineral commodities will be published in mid-1964 after completion of canvasses of all mineral industry establishments.

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**LIST OF  
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1. Ajax
2. Argenta (Montana)
3. Bald Mountain
4. Bannack
5. Beaverhead (Dark Horse) (Mulchy Creek)
6. Big Muddy
7. Blacktail
8. Bloody Dick (Beaverhead)
9. Blue Wing
10. Bryant (Hecla)
11. Chinatown (Glendale)
12. Chinatown (Armstead)
13. Dillon (Carter Creek) (Frying Pan Basin)
14. Elkhorn (Coolidge)
15. Elkhorn (Wise River)
16. Horse Prairie
17. Jake Creek
18. Lost Creek (Brown's Lake) (Rock Creek)
19. Medicine Lodge
20. Monida
21. Mount Torrey
22. Nicocolla
23. Nogo (Apex)
24. Pioneer
25. Polaris (Lost Cloud)
26. Ruby
27. Saginaw (Jackson)
28. Utopia (Birch Creek)
29. Vipond
30. Wisdom (Big Hole)

**Blaine County, A-8**

29. Bearpaw

**Broadwater County, C-5**

30. Confederate Gulch (Backer) (Canton) (Diamond City)
31. Deep Creek
32. Hellgate
33. Lone Mountain
34. Maple Gulch
35. Park (Hassel) (Indian Creek) (Townsend)
36. Radersburg (Cedar Plains)
37. Winston (Beaver Creek)

**Carbon County, D-7**

38. Clark Fork
39. Hellroaring
40. Silver Run

**Cascade County, B-5**

41. Neihart (Montana)

**Deer Lodge County, D-3**

42. Blue Eyed Nellie (Silver Lake)
43. French Gulch
44. Georgetown (Southern Cross) (Cable)
45. Girard
46. Heber (Mill Creek)
47. Lost Creek (Dry Gulch) (Antelope Creek)
48. Oro Fino (Dry Cottonwood)

**Fergus County, B-7**

49. Cone Butte
50. North Moccasin (Kendall)
51. Warm Springs (Gilt Edge) (Maiden)

**Flathead County, A-2**

52. Hog Heaven (Flathead) (Kila)
53. Star Meadow (Lupfer)
54. Whitefish

**Gallatin County, D-5**

55. Eldridge
56. West Gallatin (Spring Hill)

**Granite County, C-3**

57. Alps (Bonita)
58. Antelope Creek
59. Combination (Henderson) (Black Pine)
60. Dunkleburg
61. Frog Pond Basin
62. Garnet (Top-o'-Deep) (First Chance)
63. Maxville (Wyman) (Gird Creek)
64. Moose Lake
65. Phillipsburg (Flint Creek) (Granite)
66. Red Lion (Cable Mountain)
67. Rock Creek
68. Rose Mountain (Gold Creek)
69. South Boulder (Princeton)
70. Welcome Creek

**Jefferson County, C-4**

71. Alhambra (Hot Springs) (Golconda)
72. Amazon
73. Basin (Cataract) (Comet)
74. Beaver Gulch
75. Boulder
76. Big Foot (State Creek)
77. Clancy (Lump Gulch) (Buffalo Creek)
78. Colorado (Corbin) (Gregory) (Wickes)
79. Elkhorn
80. Elk Park
81. Homestake
82. Little Pipestone
83. Lowland
84. McClellan (Mitchell Creek)
85. Montana City
86. Nez Perce
87. Pipestone
88. Whitehall (Cardwell)
89. Whitetail

**Judith Basin County, B-6**

90. Barker (Hughesville)
91. Running Wolf
92. Yogo

**Lake County, B-2**

93. Elmo (Chief Cliff)

**Lewis and Clark County, B-4**

94. Austin (Greenhorn)
95. Blue Cloud
96. Gould-Stemple (Fool Hen) (Poorman)
97. Heddleston (Blackfoot) (Silver)
98. Helena (Last Chance) (Springhill) (Unionville) (Owyhee)
99. Lincoln (McClellan Gulch) (Seven-up Pete Gulch) (Keep Cool Creek) (Liverpool Creek) (Stonewall Mountain)
100. Marysville (Bald Butte) (Ottawa)
101. Missouri River
102. Ophir

103. Rimini (Vaughn) (Bear Gulch)
104. Scratchgravel Hills (Grass Valley)
105. Wolf Creek (Gladstone)
106. York

**Lincoln County, A-1**

107. Cabinet (Fish River)
108. Libby (Snowshoe)
109. Rainy Creek
110. Sylvanite
111. Tobacco River
112. Troy (Grouse Mountain) (Calahan)
113. Wolf Creek

**Madison County, D-5**

114. Bismark (Wilman)
115. Cherry Creek
116. McCarthy Mountain
117. Norris (Lower Hot Springs) (Upper Hot Springs)
118. Norwegian Creek
119. Pony (Mineral Hill)
120. Potosi
121. Renova (Bone Basin) (Mayflower)
122. Rochester (Rabbit)
123. Ruby Mountains
124. Sand Creek
125. Sheridan (Mill Creek) (Brandon) (Indian Creek) (Pamshorn)
126. Silver Star (Iron Rod)
127. South Boulder (Mammoth)
128. Tidal Wave (Twin Bridges)
129. Virginia City (Summit) (Pine Grove) (Highland) (Fairweather) (Nevada) (Junction) (Alder Gulch) (Brown's Gulch) (Granite Creek) (William's Gulch) (Barton Gulch)
130. Washington (Meadow Creek) (McAllister)

**Meagher County, C-6**

131. Beaver (Elk Creek) (Thompson Creek)
132. Castle Mountains
133. Murray (Battle Creek)
134. Musselshell (Copperopolis)

**Mineral County, B-2**

135. Cedar Creek (Quartz Creek) (Trout Creek)
136. Denemora (Big Elk) (Saltese)
137. Iron Mountain (Superior)
138. Keystone
139. Packer Creek
140. Rock Island
141. St. Regis (Deer Creek) (Ward)

**Missoula County, C-3**

142. Clinton (Wallace)
143. Coloma (Potomac)
144. Copper Cliff
145. Elk Creek
146. Nine Mile Creek (Kennedy Creek)
147. Petty Creek
148. Woodman (Lolo)

**Park County, D-6**

149. Cowles (Haystack)
150. Crevasse

151. Emigrant (Chico)
152. Horseshoe
153. Jardine (Bear Gulch) (Sheepeater)
154. New World (Cooke City) (Blackmore)

**Phillips County, A-9**

155. Little Rockies (Landusky) (Zortman)

**Powell County, C-4**

156. Big Blackfoot (Helmville)
157. Eliston (Ontario) (Nigger Hill)
158. Emery (Zosell)
159. Finn (Washington) (Jefferson, and) (Buffalo Gulches)
160. Garrison
161. Ophir (Snowshoe) (Deadwood)
162. Oro Fino
163. Pioneer (Gold Creek)
164. Racetrack (Danielsville)

**Ravalli County, C-2**

165. Curlew
166. Hughes Creek (Alta) (Overwich)
167. Mineral Point
168. Pleasant View
169. Slate Creek
170. Three Mile

**Sanders County, B-1**

171. Blue Creek (Heron)
172. Camas Prairie (Perma)
173. Plains
174. Prospect Creek
175. Revals Creek (Dixon)
176. Sleepy Creek (Belknap)
177. Silver Butte (Vermillion) (Cabinet)
178. Spring Gulch
179. Thompson River
180. Trout Creek
181. White Pine (Bagle)

**Silver Bow County, D-4**

182. Basin Creek
183. Butte (Summit Valley) (Lost Child)
184. Divide Creek
185. Fleeceer Mountain
186. German Gulch (Siberia)
187. Highland
188. Independence
189. Melrose (Camp Creek) (Soap Gulch)
190. Moose Creek

**Stillwater County, D-7**

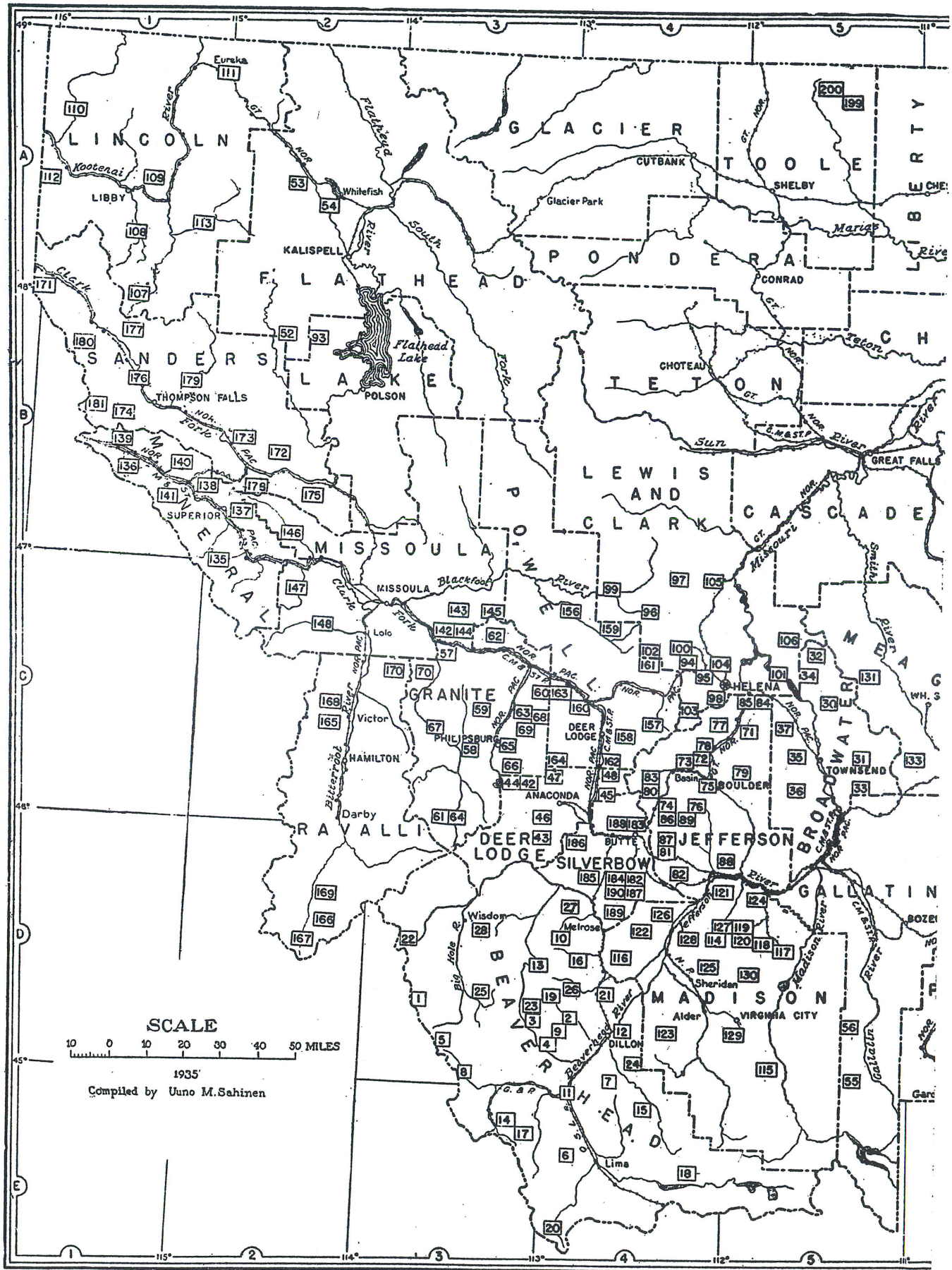
191. Nye
192. Stillwater
193. Yellowstone River

**Sweet Grass County, D-6**

194. Big Timber Canyon
195. Boulder River
196. Independence
197. Natural Bridge
198. West Stillwater

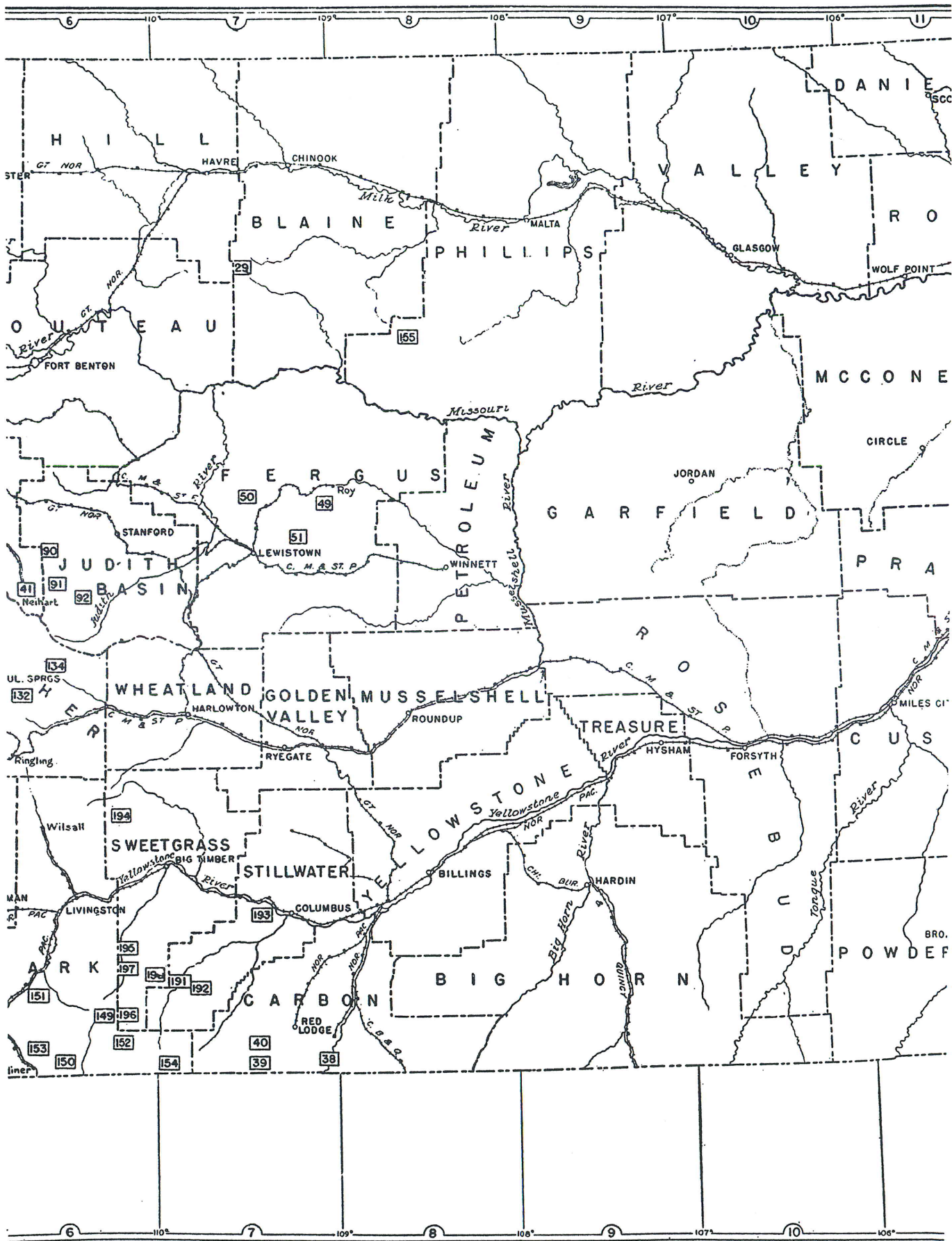
**Toole County, A-5**

199. Gold Butte
200. West Butte



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MINING DISTRICTS IN MONTANA



