Major Mines of Nevada 2019

Mineral Industries in Nevada’s Economy
NEVADA COMMISSION ON MINERAL RESOURCES
Division of Minerals

The seven-member Commission on Mineral Resources is a public body appointed by the Governor that provides advice and recommendations to the Governor and Legislature on matters relating to mineral resources. The Division’s mission is to encourage and assist in the responsible exploration for, and the production of, minerals, oil, gas, and geothermal energy which are economically beneficial to the State.

The Division is involved in activities relating to mineral, oil, gas, and geothermal development. Staff compiles annual data on all active mines in Nevada and maintains the State’s mine registry. Information concerning mining operations and production is made available to the public through this yearly publication. Educational documents and materials concerning the minerals industry are also produced. The Division often acts as a cooperating agency in federal land use actions at the request of the Governor’s office.

The Division is the fluid minerals permitting agency for drilling activities on both public and private lands in Nevada. Staff also monitors production of oil, gas, and geothermal resources to ensure proper management and conservation. Nevada is a member of the Interstate Oil and Gas Compact Commission.

The Division’s abandoned mine lands program provides for public safety by identifying and ranking dangerous conditions at mines that are no longer operating, and by securing dangerous orphaned mine openings. The program continually urges the public to recognize and avoid hazardous abandoned mines.

Commission on Mineral Resources

Richard DeLong, Chair (Large-Scale Mining)
Mary Korpi, Vice-Chair (Small-Scale Mining and Prospecting)
Nigel Bain (Large-Scale Mining)
Randy Griffin (Small-Scale Mining and Prospecting)
Arthur Henderson (Oil and Gas)
Bob Felder (Exploration and Development)
Josh Nordquist (Geothermal Resources)

Division of Minerals Staff

Mike Visher - Administrator, Division of Minerals
Courtney Brailo - AML/Fluid Minerals Field Specialist
Sean Derby - Chief, Abandoned Mine Lands Program
Rebecca Ely - Public Outreach/AML Field Specialist
Robert Ghiglieri - Deputy Administrator
Valerie Kneefel - Program Officer II
Sherrie Nuckolls - Administrative Assistant IV, Carson City Office
Lucia Patterson - GIS/Field Specialist
Lowell Price - Program Manager, Oil, Gas, and Geothermal
Deborah Selig - Administrative Assistant IV, Las Vegas Office
Garrett Wake - Southern Nevada Programs Manager

Cover photo: Photo of the Isabella Pearl open pit mining operation in Mineral County. (Gold Resource Corporation photo).
This is the thirty-first of an annual series of summary reports on major mines of Nevada. Aggregate operations are not included. Information on employment and production for the calendar year 2019 was provided by the individual mine operators. The Nevada Division of Minerals maintains a complete register of Nevada mines. For further information, contact them at 400 W. King, Suite 106, Carson City, Nevada 89703 or call (775) 684-7040, fax (775) 684-7052, or visit their Web site at http://minerals.nv.gov.

College of Science
Mackay School of Earth Sciences and Engineering

University of Nevada, Reno

© Copyright 2020 The University of Nevada, Reno.
All Rights Reserved
Contents

Major mines

Section I
Lyon County 5
Storey County 5
Washoe County 5

Section II
Humboldt County 6
Pershing County 8

Section III
Eureka County 11
Lander County 12

Section IV
Elko County 14
White Pine County 15

Major mines, oil fields, and geothermal plants, 2019 (centerfold map)

Section V
Churchill County 16
Mineral County 17

Section VI
Esmeralda County 18
Nye County 19

Section VII
Clark County 21
Lincoln County 21

Summary of 2019 production 22

Economic impacts of mining in Nevada—2019 23

Index 28
### Lyon County

**Adams Claim Gypsum Mine (1)**
Operator: Art Wilson Co.
P.O. Box 20160
Carson City, NV 89721
775-882-0700  Fax: 882-0790
Company employees: 37
Production:
- Gypsum - 290,302 tons
- Limestone - 3,648 tons

**Ludwig Mine (2)**
Operator: Art Wilson Co.
P.O. Box 20160
Carson City, NV 89721
775-882-0700  Fax: 882-0790
Company employees: 3
Production:
- Gypsum - 37,541 tons

**NCC Fernley Operations (3)**
Operator: Nevada Cement Co.
1290 West Main Street
Fernley, NV 89408
775-575-2281  Fax: 575-4387
Company employees: 116
Production:
- Limestone - 127,158 tons

**NCC Mustache Mine (4)**
Operator: Nevada Cement Co.
1290 West Main Street
Fernley, NV 89408
775-575-2281  Fax: 575-4387
Company employees: 2
Production:
- Pozzolan - 959 tons

### Storey County

**Clark Mine (5)**
Operator: US Silica
640 Clark Station Rd.
Sparks, NV 89434
775-824-7700  Fax: 824-7715
Company employees: 4
Contract employees: 5
Production:
- Diatomite - 84,732 tons

### Washoe County

**NCC Flanigan Mine (6)**
Operator: Nevada Cement Co.
1290 West Main Street
Fernley, NV 89408
775-575-2281  Fax: 575-4387
No mine production in 2019
Section II

Humboldt County

Hycroft Mine (1)
Operator:
  Hycroft Mining, Corp.
  P.O. Box 3030
  Winnemucca, NV 89446
  775-623-5260   Fax: 201-1045
  Company employees: 216
  Contract employees: 45
Production:
  Gold - 8,916 oz
  Silver - 56,783 oz

Lone Tree Complex (2)
Operator:
  Nevada Gold Mines, LLC
  1655 Mountain City Highway
  Elko, NV 89801
  775-778-4000   Fax: 778-4360
  Company employees: 11
  Contract employees: 33
Production:
  Gold - 17,483 oz
Marigold Mine (3)
Operator:
SSR Mining
P.O. Box 160
Valmy, NV 89438
775-502-4800
Company employees: 420
Contract employees: 17
Production:
Gold - 220,227 oz
Silver - 4,223 oz

MIN-AD Mine (4)
Operator:
MIN-AD, Inc.
P.O. Box 39
Winnemucca, NV 89446
775-623-5944 Fax: 623-9028
Company employees: 13
Production:
Dolomite - 44,495 tons

Turquoise Ridge Underground Mine (5)
Operator:
Nevada Gold Mines, LLC
HC 66 Box 220
Golconda, NV 89414
775-529-5001 Fax: 748-3125
Company employees: 509
Contract employees: 160
Production:
Gold - 406,066 oz
Silver - 56,817 oz

Twin Creeks Mine (6)
Operator:
Nevada Gold Mines, LLC
HC 66 Box 220
Golconda, NV 89414
775-529-5001 Fax: 748-3125
Company employees: 442
Contract employees: 218
Production:
Gold - 237,644 oz
Silver - 108,342 oz
Pershing County

Buff/Satin Mine (7)
Operator:
  Vanderbilt Minerals, LLC
  P.O. Box 6660
  Pahrump, NV 89041
  775-537-6976  Fax: 537-6879
  Company employees: 7
Production:
  Specialty Clay - 2,500 tons

Coeur Rochester Mine (8)
Operator:
  Coeur Rochester, Inc.
  P.O. Box 1057
  Lovelock, NV 89419
  775-273-7995  Fax: 273-7423
  Company employees: 297
  Contract employees: 40
Production:
  Gold - 35,401 oz
  Silver - 3,761,060 oz

Colado Mine (9)
Operator:
  US Silica
  P.O. Box 959
  Lovelock, NV 89419
  775-824-7591  Fax: 824-7595
  Company employees: 35
Production:
  Diatomite - 114,418 tons

Florida Canyon Mine (11)
Operator:
  Florida Canyon Mining, Inc.
  Alio Gold purchased by
  Argonaut Gold in 2020
  P.O. Box 330
  Imlay, NV 89418
  775-259-4581
  Company employees: 187
  Contract employees: 11
Production:
  Gold - 43,305 oz
  Silver - 30,877 oz

Relief Canyon Limestone Quarry (12)
Operator:
  Nevada Cement Company
  1290 West Main Street
  Fernley, NV 89408
  775-575-2281  Fax: 575-4387
  Company employees: 2
Production:
  Limestone - 53,834 tons

Sunrise Placer Mine (13)
Operator:
  Sunrise Minerals, LLC
  9405 Betty Ln.
  Winnemucca, NV 89445
  775-848-2580
No mine production in 2019

Empire Gypsum Mine (10)
Operator:
  Empire Mining Co., LLC
  P.O. Box 157
  Gerlach, NV 89412
  775-800-4569  Fax: 702-921-9552
  Company employees: 40
  Contract employees: 1
Production:
  Gypsum - 558,522 tons
Coeur Rochester Mill Circuit, Pershing County
(Garrett Wake photo).
Section III

Eureka County

Betze-Post Mine (1)
Operator:
  Nevada Gold Mines, LLC
  1655 Mountain City Highway
  Elko, NV 89803
  775-748-1001
  Company employees: 1,150
Production:
  Gold - 493,546 oz
  Silver - 18,781 oz

Eastern Nevada Operations
(Carlin Operations) (2)
Operator:
  Nevada Gold Mines, LLC
  1655 Mountain City Highway
  Elko, NV 89801
  775-778-1001
  Company employees: 1,886
Production:
  Gold - 880,615 oz
  Silver - 57,551 oz

Gold Bar Mine (3)
Operator:
  McEwen Mining Nevada, Inc.
  2215 N. 5th Street
  Elko, NV 89801
  775-777-9977
  Company employees: 78
  Contract employees: 95
Production:
  Gold - 30,709 oz
  Silver - 614 oz

Maggie Creek Operation (4)
Operator:
  Progressive Contracting, Inc.
  P.O. Box 1930
  St. George, UT 84771
  435-628-6662  Fax: 628-7314
  Company employees: 3
Production:
  Barite - 88,931 tons

Ruby Hill Mine (5)
Operator:
  Ruby Hill Mining Co.
  9650 Gateway Drive, Suite 202
  Reno, NV 89521
  775-826-7567
  Company employees: 13
Production:
  Gold - 3,356 oz
  Silver - 2,540 oz
Lander County

Argenta Mine (6)
Operator:
Baker Hughes Oilfield Operations, LLC
P.O. Box 277
Battle Mountain, NV 89820
775-625-8700  Fax: 635-5455
Company employees: 18
Contract employees: 6
Production:
Barite - 53,750 tons

Cortez Hills Underground Mine (7)
Operator:
Nevada Gold Mines, LLC
HC66 Box 1250
Crescent Valley, NV 89821
775-468-4400  Fax: 468-4496
Company employees: 322
Contract employees: 130
Production:
 Chíldoo mine production in 2019
(underground only, excluding the open-pit)
Gold - 400,389 oz
Silver - 26,056 oz

Fire Creek Mine (8)
Operator:
Hecla Mining Co.
4000 W. Winnemucca Blvd.
Winnemucca, NV 89445
775-621-5535
Company employees: 75
Contract employees: 18
Production:
Gold - 52,616 oz
Silver - 63,279 oz

Greystone Mine (9)
Operator:
M-I LLC
P.O. Box 277
Battle Mountain, NV 89820
775-635-5135
Company employees: 37
Production:
Barite - 222,000 tons

Mountain Springs Mine (10)
Operator:
M-I LLC
P.O. Box 370
2 North Second Street
Battle Mountain, NV 89820
775-635-5135
No mine production in 2019

Pipeline Mine (11)
Operator:
Nevada Gold Mines, LLC
HC66 Box 1250
Crescent Valley, NV 89821
775-468-4400  Fax: 468-4496
Company employees: 932
Contract employees: 425
Production:
Chillout mine production in 2019
(includes the Cortez Hills open-pit)
Gold - 543,335 oz
Silver - 35,754 oz
Phoenix Mine (12)
Operator:
Nevada Gold Mines
1655 Mountain City Highway
Elko, NV 89801
775-778-4000  Fax: 778-4360
Company employees: 480
Contract employees: 107
Production:
Gold - 160,700 oz
Silver - 754,270 oz
Copper - 30,585,072 pounds

Slaven Canyon Mine (13)
Operator:
Baker Hughes Oilfield Operations, LLC
P.O. Box 277
Battle Mountain, NV 89820
775-625-8700  Fax: 635-5455
Company employees: 18
Contract employees: 6
Production:
Barite - 211,696 tons
Section IV

Elko County

Arturo Mine (1)
Operator:
Nevada Gold Mines, LLC
1655 Mountain City Highway
Elko, NV 89801
775-748-1001
Company employees: 30
Production:
Gold - 21,029 oz

Hollister Mine (2)
Operator:
Hecla Mining Co.
4000 W. Winnemucca Blvd.
Winnemucca, NV 89445
775-621-5535
Company employees: 6
Production:
Gold - 3,264 oz
Silver - 53,025 oz

Jerritt Canyon Mine (3)
Operator:
Jerritt Canyon Gold, LLC
HC31 Box 78
Elko, NV 89801
775-738-5600 Fax: 758-9233
Company employees: 280
Contract employees: 200
Production:
Gold - 117,985 oz

Long Canyon Mine (4)
Operator:
Nevada Gold Mines, LLC
1655 Mountain City Highway
Elko, NV 89801
775-748-1001
Company employees: 228
Contract employees: 140
Production:
Gold - 189,965 oz

Elko and White Pine continued on page 15 after the centerfold
Section IV (continued)

Meikle Mine (5)
Operator:
Nevada Gold Mines, LLC
1655 Mountain City Highway
Elko, NV 89801
775-748-1001
Company employees: 563
Production:
Gold - 331,271 oz
Silver - 12,606 oz

Midas Mine (6)
Operator:
Hecla Mining Co.
4000 W. Winnemucca Blvd.
Winnemucca, NV 89445
775-621-5535
Company employees: 27
Contract employees: 12
Production:
Gold - 6,096 oz
Silver - 42,439 oz

Pilot Peak Quarry (7)
Operator:
Graymont
P.O. Box 2520
West Wendover, NV 89883
775-483-5463
Company employees: 69
Production:
Limestone - 1,634,908 tons

Rossi Mine (8)
Operator:
Halliburton Energy Services
912 Dunphy Ranch Rd.
Battle Mountain, NV 89820
720-593-7106
Company employees: 3
No mine production in 2019

Mt. Moriah Quarry (10)
Operator:
Mt. Moriah Stone
P.O. Box 70
Baker, NV 89311
435-855-2232 Fax: 855-2332
Company employees: 29
Production:
Quartzite - 3,482 tons

Pan Mine (11)
Operator:
Fiore Gold (US), Inc.
P.O. Box 150278
Ely, NV 89315
775-386-1900
Company employees: 62
Contract employees: 102
Production:
Gold - 40,499 oz

Robinson Mine (12)
Operator:
KGHM International, Ltd.
P.O. Box 382
Ruth, NV 89319
775-289-7000 Fax: 289-7349
Company employees: 606
Contract employees: 100
Production:
Copper - 113,132,886 pounds
Gold - 51,277 oz
Molybdenite - 766,699 pounds
Silver - 67,634 oz

White Pine County

Bald Mountain Mine North & South Operations (9)
Operator:
KG Mining (Bald Mountain), Inc.
435 Jiggs Hwy., Unit 16
Spring Creek, NV 89815
775-237-7100 Fax: 237-7101
Company employees: 605
Contract employees: 475
Production:
Gold - 187,585 oz
Silver - 32,464 oz
Major mines, oil fields, and geothermal plants, 2019.

**Industrial Minerals**
1. Adams Claim Gypsum Mine
2. Amargosa Clay Operation
3. Apex Limestone Quarry
4. Argenta Barite Mine
5. Basalt Diatomite Mine
6. Blanco Clay Mine
7. Buff/Satin Clay Mine
8. Churchill Limestone Mine
9. Clark Diatomite Mine
10. Colado Diatomite Mine
11. Empire Gypsum Mine
12. Fernley Diatomite Operations
13. Greystone Barite Mine
14. Hazen Diatomite Mine
15. Heart of Nature Gypsum Mine
16. Huck Salt Mine
17. Lima Nevada Gypsum Mine
18. Ludwig Mine
19. Maggie Creek Plant
20. MIN-AD Dolomite Mine
21. Mt. Moriah Quartzite Quarry
22. Mountain Springs Barite Mine
23. NCC Flanigan Clay Mine
24. NCC Fernley Limestone Ops.
25. New Discovery Mine
26. Nightingale Diatomite Mine
27. PABCO Gypsum
28. Perlite Mine
29. Pilot Peak Limestone Quarry
30. Premier Magnesia
31. Rainbow Quarry
32. Relief Canyon Limestone Quarry
33. Rossi Barite Mine
34. Silver Peak Lithium Ops.
35. Simplot Silica Products
36. Siwlan Canyon Mine
37. Tenacity Perlite Mine

**Metals**
1. Arturo Mine
2. Aurora Mine
3. Bald Mountain Mine
4. Betze-Post Mine
5. Borealis Mine
6. Carlin Operations (many mines)
7. Cœur Rochester Mine
8. Cortez Hills Underground and Pipeline Mines
9. Denton-Rawhide Mine
10. Fire Creek Mine
11. Florida Canyon Mine
12. Gold Bar Mine
13. Hollister Mine
14. Hycroft Mine
15. Isabella Pearl Mine
16. Jerritt Canyon Mine
17. Lone Tree Complex
18. Long Canyon Mine
19. Marigold Mine
20. Meikle Mine
21. Midas Mine
22. Mineral Ridge Mine
23. Pan Mine
24. Phoenix Mine
25. Robinson Mine
26. Ruby Hill Mine
27. Round Mountain Mine
28. Sterling Mine
29. Sunrise Placer Mine
30. Turquoise Ridge Mine
31. Twin Creeks Mine

**Oil Fields**
1. Blackburn Field
2. Railroad Valley (Eagle Springs, Trap Spring, Sand Dune, Grant Canyon, Bacon Flat, Kate Spring, Sans Spring, and Ghost Ranch Fields)
3. Tomera Ranch Field

**Geothermal Power Plants**
1. Beowave
2. Blue Mountain
3. Bradys Hot Springs
4. Desert Peak 2
5. Dixie Valley
6. Jersey Valley
7. McGinness Hills
8. Patua
9. Salt Wells
10. San Emidio
11. Soda Lake 1 and 2
12. Steamboat Hills
13. Steamboat II, and III, Galena
14. Stillwater 1 and 2
15. Tungsten Mountain
16. Tuscarora
17. Wabuska
18. Wild Rose
2019 Southern Nevada Teachers Workshop Tour to Lhoist’s Apex Plant, Clark County (Garrett Wake photo).

Silver doré bars from Coeur Rochester, Pershing County (Garrett Wake photo).
Section V

Churchill County

Churchill Limestone Quarry (1)
Operator:
Nevada Cement Co.
1290 West Main Street
Fernley, NV 89408
775-575-2281

Company employees: 4
Production:
Limestone - 361,276 tons

Fernley Diatomite Operations (2)
Operator:
US Silica
P.O. Box 860
Fernley, NV 89408
775-423-6668   Fax: 423-6411

Company employees: 35
Production:
Diatomite - 34,875 tons
**Hazen Mine (3)**
Operator:
US Silica  
640 Clark Station Rd.  
Sparks, NV 89434  
775-824-7700 Fax: 824-7715  
Company employees: 2  
Contract employees: 4
Production:  
Diatomite - 13,330 tons

**Huck Salt (4)**
Operator:
Huck Salt Company  
2900 Phritzie Ln.  
Fallon, NV 89406  
775-423-2055 Fax: 423-0467  
Company employees: 10
Shipped:  
Salt - 24,532 tons

**Nightingale Mine (5)**
Operator:
Imerys of California, Inc.  
100 Front Street  
Fernley, NV 89408  
775-575-2536 Fax: 575-1570  
Company employees: 15  
Contract employees: 5
Production:  
Diatomite - 26,426 tons

**Perlite Mine (6)**
Operator:
US Silica  
640 Clark Station  
Sparks, NV 89434  
775-824-7700 Fax: 824-7715
No mine production in 2019

**Mineral County**

**Aurora Mine (7)**
Operator:
Hecla Mining Co.  
4000 W. Winnemucca Blvd.  
Winnemucca, NV 89445  
775-621-5535  
Company employees: 8
Production:  
Gold - 4,190 oz  
Silver - 22,998 oz

**Borealis Mine (8)**
Operator:
Borealis Mining Company, LLC  
9650 Gateway Drive, STE 202  
Reno, NV 89521  
775-826-7567  
Company employees: 7
Production:  
Gold - 605 oz  
Silver - 387 oz

**Denton-Rawhide Mine (9)**
Operator:
Rawhide Mining, LLC  
P.O. Box 2070  
Fallon, NV 89407  
775-945-1015  
Company employees: 115  
Contract employees: 2
Production:  
Gold - 14,381 oz  
Silver - 140,187 oz

**Isabella Pearl (10)**
Operator:
Walker Lane Minerals, Corp.  
P.O. Box 2170  
Fernley, NV 89408  
775-300-1592  
Company employees: 58  
Contract employees: 12
Production:  
Gold - 10,810 oz  
Silver - 9,574 oz
Section VI

Esmeralda County

Basalt Diatomite Mine (1)
Operator:
Grefco Minerals, Inc.
P.O. Box 278
Dyer, NV 89010
775-573-2422
Company employees: 15
Contract employees: 3
Production:
Diatomite - 2,366 tons

Blanco Mine (2)
Operator:
Vanderbilt Minerals, Inc.
P.O. Box 6660
Pahrump, NV 89041
775-537-6976 Fax: 537-6879
Production:
Specialty clays - No mining occurred in 2019
Heart of Nature (3)
Operator:
ABM Mining, LLC
2470 Saint Rose Parkway Suite 301
Henderson, NV 89074
661-399-9755  Fax: 399-9758
Company employees: 2
Contract employees: 2
Production:
Gypsum/sulfur soil
amendment - 9,748 tons

Mineral Ridge Mine (4)
Operator:
Mineral Ridge Gold, LLC
1910 Idaho St., Ste. 102-550
Elko, NV 89801
775-753-4778  Fax: 775-753-4780
Company employees: 23
Production:
Gold - 3,863 oz
Silver - 2,324 oz

Silver Peak Lithium Operations (5)
Operator:
Albemarle U.S., Inc.
P.O. Box 98
Silver Peak, NV 89047
775-937-2222  Fax: 937-2317
Company employees: 65
Contract employees: 15
Shipped:
Lithium compounds - 7,887,994 lbs

New Discovery Mine (7)
Operator:
Vanderbilt Minerals, LLC
P.O. Box 6660
Pahrump, NV 89041
775-537-6976  Fax: 537-6879
Company employees: 7
Production:
Specialty clays - No mining occurred in 2019

Premier Magnesia (8)
Operator:
Premier Magnesia, LLC
P.O. Box 177
Gabbs, NV 89409
775-285-2601  Fax: 285-4021
Company employees: 109
Contract employees: 10
Shipped:
Magnesium compounds - 118,698 tons

Round Mountain Mine (9)
Operator:
Round Mountain Gold Corp.
P.O. Box 480
Round Mountain, NV 89045
775-377-2366  Fax: 377-3224
Company employees: 843
Contract employees: 346
Production:
Gold - 350,943 oz
Silver - 921,881 oz

Sterling Mine (10)
Operator:
Coeur Sterling
P.O. Box 549
Beatty, NV 89003
702-846-2606
Company employees: 9
Contract employees: 5
No mine production in 2019

Nye County

Amargosa Clay Operation (6)
Operator:
Lhoist North America
P.O. Box 86
Amargosa Valley, NV 89020
775-372-5341
Company employees: 41
Contract employees: 1
Production:
Specialty clays - 116,636 tons
Section VII

Clark County

Apex Quarry (1)
Operator:
Lhoist North America
12101 N. Las Vegas Blvd.
Las Vegas, NV 89165
702-643-7702
Company employees: 114
Contract employees: 5
Production:
Limestone - 1,370,000 tons
Dolomite - 276,000 tons

Lima Nevada Gypsum Mine (2)
Operator:
H. Lima Nevada, LLC
704 E. Yosemite
Manteca, CA 95336
209-239-6787 Fax: 239-6778
Company employees: 10
Production:
Gypsum - 130,000 tons

PABCO Gypsum Mine (3)
Operator:
Pacific Coast Building Products, Inc.
P.O. Box 364329
North Las Vegas, NV 89036
702-407-3700 Fax: 643-6249
Company employees: 20
Contract employees: 3
Production:
Gypsum - 903,514 tons

Rainbow Quarry (4)
Operator:
Las Vegas Rock, Inc.
P.O. Box 19118
2 Jean Prison Rd.
Jean, NV 89019
702-791-7625 Fax: 896-4533
Company employees: 10
Production:
Meta-quartzite blocks - 1,543 tons

Simplot Silica Products (5)
Operator:
J.R. Simplot Company
P.O. Box 308
Overton, NV 89040
702-397-2667 Fax: 397-2798
Company employees: 35
Shipped:
Silica sand - 617,553 tons

Lincoln County

Tenacity Perlite Mine (6)
Operator:
Wilkin Mining & Trucking, Inc.
HC 34 Box 199
Caliente, NV 89008
775-728-4463
Company employees: 2
Production:
Perlite - 2,213 tons
Summary of 2019 production

<table>
<thead>
<tr>
<th>Material</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gold</td>
<td>4,868,086 ounces</td>
</tr>
<tr>
<td>Silver</td>
<td>6,282,466 ounces</td>
</tr>
<tr>
<td>Barite (mined)</td>
<td>576,377 tons</td>
</tr>
<tr>
<td>Copper</td>
<td>143,717,958 pounds</td>
</tr>
<tr>
<td>Diatomite</td>
<td>276,147 tons</td>
</tr>
<tr>
<td>Dolomite</td>
<td>320,495 tons</td>
</tr>
<tr>
<td>Gypsum</td>
<td>1,929,627 tons</td>
</tr>
<tr>
<td>Limestone</td>
<td>3,550,824 tons</td>
</tr>
<tr>
<td>Lithium compounds (shipped)</td>
<td>7,887,994 pounds</td>
</tr>
<tr>
<td>Magnesium compounds (shipped)</td>
<td>118,698 tons</td>
</tr>
<tr>
<td>Molybdenite</td>
<td>766,699 pounds</td>
</tr>
<tr>
<td>Perlite</td>
<td>2,213 tons</td>
</tr>
<tr>
<td>Pozzolan</td>
<td>959 tons</td>
</tr>
<tr>
<td>Quartzite</td>
<td>5,025 tons</td>
</tr>
<tr>
<td>Salt (shipped)</td>
<td>24,532 tons</td>
</tr>
<tr>
<td>Silica sand (shipped)</td>
<td>617,553 tons</td>
</tr>
<tr>
<td>Specialty clays</td>
<td>119,136 tons</td>
</tr>
</tbody>
</table>

Nevada Mineral and Energy Production Values 1978 - 2019

![Graph showing mineral and energy production values from 1978 to 2019](image)
Economic Impacts of Mining in Nevada—2019

Nevada’s mining industry recorded approximately $8.1 billion in total value of all commodities in 2019, representing a 3.8% decrease from the $8.42 billion value in 2018. Nearly 85% of the value was driven by gold and silver, which contributed over $7.1 billion, based on the actual gross proceeds reported to the Nevada Department of Taxation. According to Kitco Metals Inc. (www.kitco.com), the average prices for gold and silver in 2019 were $1,392.60 and $16.21 per troy ounce, respectively. Nevada led the nation in 2019 in the production of gold, barite, lithium compounds and magnesium compounds. Nevada produced a wide variety of other mineral and energy commodities such as clays, copper, diatomite, dolomite, geothermal energy, gypsum, lapidary and gem stones, limestone, molybdenite, oil, perlite, salt, silica sand, silver, and specialty aggregates. A summary of commodity production amounts, value, and year over year percentage changes can be seen in table 1.

### Production Highlights

Nevada’s gold production was 4,868,086 troy ounces in 2019 compared to 5,581,160 troy ounces in 2018, a decrease of 12.8%. According to the USGS, Nevada remains the nation’s top gold producer with about 87% (173 metric tons) of the U.S. total (200 metric tons) and would rank 5th in world gold production behind China (420), Australia (330), Russia (310), and Canada (180). A summary of 2019 metal production, ranked by producer, is shown in table 2.

### Employment

According to the Nevada Department of Employment, Training, and Rehabilitation, the Nevada minerals industry, including support activities and oil and gas extraction, directly employed an average of 14,887 people in 2019. The average yearly pay for mineral industry employees during this time was $105,862, the third highest average private employment sector in the state, behind Company Management and Utilities. Mining employment has remained an important factor in Nevada.

### Table 1. Summary of 2019 Nevada Mineral Commodity Production

<table>
<thead>
<tr>
<th>Commodity</th>
<th>Production Amount</th>
<th>Unit</th>
<th>YOY Change (%)</th>
<th>Value ($)</th>
<th>YOY Value Change (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gold</td>
<td>4,868,086</td>
<td>ounces</td>
<td>-13.7%</td>
<td>$6,779,296,564</td>
<td>-4.4%</td>
</tr>
<tr>
<td>Silver</td>
<td>6,282,466</td>
<td>ounces</td>
<td>-25.9%</td>
<td>$101,838,774</td>
<td>-29.5%</td>
</tr>
<tr>
<td>Barite (shipped)</td>
<td>172,157</td>
<td>tons</td>
<td>-56.0%</td>
<td>$49,449,408</td>
<td>57.0%</td>
</tr>
<tr>
<td>Copper</td>
<td>143,717,958</td>
<td>pounds</td>
<td>-1.4%</td>
<td>$390,912,846</td>
<td>-5.9%</td>
</tr>
<tr>
<td>Diatomite</td>
<td>276,147</td>
<td>tons</td>
<td>-0.3%</td>
<td>$47,593,994</td>
<td>8.4%</td>
</tr>
<tr>
<td>Dolomite</td>
<td>44,495</td>
<td>tons</td>
<td>-6.4%</td>
<td>$4,544,808</td>
<td>-18.9%</td>
</tr>
<tr>
<td>Gypsum</td>
<td>1,292,627</td>
<td>tons</td>
<td>-44.6%</td>
<td>$28,805,229</td>
<td>-32.6%</td>
</tr>
<tr>
<td>Limestone</td>
<td>3,826,824</td>
<td>tons</td>
<td>19.0%</td>
<td>$37,149,758</td>
<td>7.8%</td>
</tr>
<tr>
<td>Lithium compounds (shipped)</td>
<td>7,887,994</td>
<td>pounds</td>
<td>-22.9%</td>
<td>$36,022,907</td>
<td>-9.1%</td>
</tr>
<tr>
<td>Magnesium compounds (shipped)</td>
<td>118,556</td>
<td>tons</td>
<td>5.7%</td>
<td>$6,404,420</td>
<td>-18.9%</td>
</tr>
<tr>
<td>Molybdenite</td>
<td>766,699</td>
<td>pounds</td>
<td>17.5%</td>
<td>$9,062,382</td>
<td>70.0%</td>
</tr>
<tr>
<td>Perlite</td>
<td>2,213</td>
<td>tons</td>
<td>-147.5%</td>
<td>$694,455</td>
<td>-16.5%</td>
</tr>
<tr>
<td>Salt (shipped)</td>
<td>24,532</td>
<td>tons</td>
<td>-1.3%</td>
<td>$843,004</td>
<td>52.2%</td>
</tr>
<tr>
<td>Silica sand (shipped)</td>
<td>617,553</td>
<td>tons</td>
<td>-15.1%</td>
<td>$17,304,879</td>
<td>-12.8%</td>
</tr>
<tr>
<td>Specialty clays</td>
<td>119,136</td>
<td>tons</td>
<td>-8.3%</td>
<td>$13,867,063</td>
<td>23.3%</td>
</tr>
<tr>
<td>Geothermal energy (sold)</td>
<td>3,858,208</td>
<td>megawatt hours</td>
<td>16.1%</td>
<td>$310,949,485</td>
<td>28.3%</td>
</tr>
<tr>
<td>Oil (sold)</td>
<td>264,115</td>
<td>barrels</td>
<td>-6.0%</td>
<td>$14,035,530</td>
<td>8.9%</td>
</tr>
<tr>
<td>Aggregates</td>
<td>33,500,000</td>
<td>tons</td>
<td>-7.6%</td>
<td>$255,000,000</td>
<td>6.3%</td>
</tr>
<tr>
<td><strong>Total Value</strong></td>
<td></td>
<td></td>
<td></td>
<td><strong>$8,103,766,595</strong></td>
<td></td>
</tr>
</tbody>
</table>
Permitting and Reclamation

Before mining can begin, plans of operation must be submitted and permits obtained from federal and state agencies to ensure that resources such as wildlife, air, and water are protected. Nevada and federal laws and regulations require that lands disturbed by mining activities be rehabilitated so they can be used for other activities once mining is completed. This process, called reclamation, returns mined areas to other productive practices such as livestock grazing, wildlife habitat, recreation opportunities, or other natural resource uses. To ensure that reclamation is completed, mine operators are required to post reclamation bonds that are held by government agencies. The bonds are released only after the mined area is stabilized and the reclamation goals have been met. According to the Nevada Division of Environmental Protection, approximately $3.1 billion in reclamation bonds and other financial assurance are currently posted. Mine operators are proud of their efforts and are constantly seeking ways to enhance their reclamation technology.

Gold Reserves

Gold reserves are defined as that portion of a gold deposit known to be economically feasible for extraction. The amount of reserves is always in a state of flux, due to some reserves being mined out, additions of new reserves through exploration, and changing commodity prices and operating costs. The price of gold and the cost of production are the main factors determining reserve. Extensive gold resources are known to exist at or near many mining operations in Nevada. An increase in the gold price with all else being equal would mean many companies would be able to reclassify their resources into a reserve category. An increase in the cost of regulatory compliance or the application of gross royalties levied on production can have the same effect as a lowering of the gold price, thereby reducing reserves. For the larger operating mines, the publicly reported reserves for the year ending 2019 totaled approximately 58 million ounces of gold. Assuming similar economic conditions without any reserve replacement, current reserves are sufficient to sustain gold production.

<table>
<thead>
<tr>
<th>Operator</th>
<th>Gold (ozs)</th>
<th>Silver (ozs)</th>
<th>Copper (lbs)</th>
<th>Moly (lbs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nevada Gold Mines</td>
<td>3,682,043</td>
<td>1,070,177</td>
<td>30,585,072</td>
<td></td>
</tr>
<tr>
<td>Kinross</td>
<td>538,528</td>
<td>954,345</td>
<td>270,111</td>
<td>739,703</td>
</tr>
<tr>
<td>SSR Mining</td>
<td>220,227</td>
<td>4,223</td>
<td>7,221</td>
<td></td>
</tr>
<tr>
<td>Jerritt Canyon Gold</td>
<td>117,985</td>
<td>NR</td>
<td>1,147</td>
<td></td>
</tr>
<tr>
<td>Hecla</td>
<td>66,166</td>
<td>181,741</td>
<td>1,113</td>
<td></td>
</tr>
<tr>
<td>KGHM International</td>
<td>51,277</td>
<td>67,634</td>
<td>113,132,886</td>
<td>766,699</td>
</tr>
<tr>
<td>Florida Canyon Mining (Argonaut Gold)</td>
<td>43,305</td>
<td>30,877</td>
<td>113,132,886</td>
<td></td>
</tr>
<tr>
<td>Fiore Gold</td>
<td>40,499</td>
<td>NR</td>
<td>113,132,886</td>
<td></td>
</tr>
<tr>
<td>Coeur</td>
<td>35,401</td>
<td>3,761,060</td>
<td>113,132,886</td>
<td></td>
</tr>
<tr>
<td>McEwen Mining</td>
<td>30,709</td>
<td>614</td>
<td>113,132,886</td>
<td></td>
</tr>
<tr>
<td>Rawhide Mining</td>
<td>14,381</td>
<td>140,187</td>
<td>113,132,886</td>
<td></td>
</tr>
<tr>
<td>Gold Resource</td>
<td>10,810</td>
<td>9,574</td>
<td>113,132,886</td>
<td></td>
</tr>
<tr>
<td>Hycroft Mining</td>
<td>8,916</td>
<td>56,783</td>
<td>113,132,886</td>
<td></td>
</tr>
<tr>
<td>Mineral Ridge Gold</td>
<td>3,863</td>
<td>2,324</td>
<td>113,132,886</td>
<td></td>
</tr>
<tr>
<td>Ruby Hill Mining</td>
<td>3,356</td>
<td>2,540</td>
<td>113,132,886</td>
<td></td>
</tr>
<tr>
<td>Borealis Mining</td>
<td>605</td>
<td>387</td>
<td>113,132,886</td>
<td></td>
</tr>
<tr>
<td>Toquima Gold</td>
<td>15</td>
<td>0</td>
<td>113,132,886</td>
<td></td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>4,868,086</strong></td>
<td><strong>6,282,466</strong></td>
<td><strong>143,717,958</strong></td>
<td><strong>766,699</strong></td>
</tr>
</tbody>
</table>
near current levels in Nevada for about ten years, (table 3).

Exploration

Exploration for new deposits is an ongoing effort by both the operating companies and many others who do not operate mines in the state. Exploration geologists, drillers, assayers, and others who support exploration activities represent a significant positive economic impact, particularly in Nevada’s rural areas. Exploration activity and funding are closely tied to economic conditions and commodity prices. In order to quantify the level of exploration activity and the factors responsible for those levels, the Division contracted with the Nevada Bureau of Mines and Geology, who released the results of the biennial exploration survey in early 2019, using 2017 and 2018 data. This informative report, which can be downloaded at http://pubs.nbmg.unr.edu/NV-exploration-survey-2018-p/es2018.htm, revealed that gold exploration accounted for 77 percent ($353 million) of $461 million total exploration spending, up significantly from $351 million total spent in 2017. Two large companies accounted for nearly 40 percent of the total spending. Approximately 784 people were directly employed by companies doing exploration activities in Nevada in 2018, up from 644 in 2017. Exploration for base metals accounted for 15 percent ($70 million) and exploration for lithium and other energy metals continues to be significant at 5 percent ($24 million).

Oil and Geothermal Activity

Economic activity from oil and gas exploration and production is relatively minor when compared to mining, but are locally important to the economy of east-central Nevada. In oil field terms, Nevada is considered a frontier state, meaning its potential is yet to be realized. According to the U.S. Energy Information Administration, the price for a barrel of West Texas Intermediate crude in 2019 ranged from a monthly average low of $16.55 to a high of $59.88 and averaged $43.51 for the year, versus $65.19 in 2018. Nevada’s oil production in 2019 increased by 5.2% from 251,021 barrels (42 gallons per

Table 3. Nevada Mine Reserves (Proven and Probable) Reported for End of Year 2019

<table>
<thead>
<tr>
<th>Company</th>
<th>Mine</th>
<th>Gold (ozs)</th>
<th>Silver (ozs)</th>
<th>Copper (lbs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argonaut Gold</td>
<td>Florida Canyon</td>
<td>1,019,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coeur</td>
<td>Rochester</td>
<td>737,000</td>
<td>117,473,000</td>
<td></td>
</tr>
<tr>
<td>Fiore Gold</td>
<td>Pan</td>
<td>275,600</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GRC</td>
<td>Isabella Pearl</td>
<td>220,100</td>
<td>1,310,700</td>
<td></td>
</tr>
<tr>
<td>Hecla</td>
<td>Fire Creek</td>
<td>54,100</td>
<td>50,700</td>
<td></td>
</tr>
<tr>
<td>Hecla</td>
<td>Hollister</td>
<td></td>
<td></td>
<td>959,000,000</td>
</tr>
<tr>
<td>KGHM</td>
<td>Robinson</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kinross</td>
<td>Bald Mountain</td>
<td>1,277,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kinross</td>
<td>Round Mountain</td>
<td>2,262,000</td>
<td>1,622,000</td>
<td></td>
</tr>
<tr>
<td>McEwen</td>
<td>Gold Bar</td>
<td>430,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nevada Copper</td>
<td>Pumpkin Hollow</td>
<td>8,000</td>
<td>194,000</td>
<td>2,060,000</td>
</tr>
<tr>
<td>NV Gold Mines</td>
<td>Carlin Operations (Includes Goldstrike &amp; Arturo)</td>
<td>21,138,211</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NV Gold Mines</td>
<td>Cortez &amp; Goldrush</td>
<td>9,918,699</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NV Gold Mines</td>
<td>Long Canyon</td>
<td>634,146</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NV Gold Mines</td>
<td>Phoenix</td>
<td>3,252,033</td>
<td>39,024,390</td>
<td>991,869,19</td>
</tr>
<tr>
<td>NV Gold Mines</td>
<td>Turquoise Ridge &amp; Twin Creeks</td>
<td>13,495,935</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SSR</td>
<td>Marigold</td>
<td>3,610,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td></td>
<td>58,331,824</td>
<td>159,674,790</td>
<td>1,952,929,919</td>
</tr>
</tbody>
</table>
barrel) in 2018 to 264,115 barrels sold, worth approximately $11.5 million. Table 4 summarizes the number of barrels sold and wells by operator and field in 2019.

Nevada is rich in geothermal resources and is second only to California in the production of geothermal energy. For 2019, Nevada had 25 plants at 17 fields that sold approximately 3.9 million megawatt hours of electricity worth approximately $311 million, (table 5). According to the U.S. Energy Information Association, this is enough to power about 355,000 Nevada residential homes for a year. Geothermal heat is also used for a variety of commercial, domestic and public applications in Nevada. Schools in Elko County, a casino in Washoe County, and homes in Lincoln and Washoe counties are examples of public and private facilities using this renewable energy resource.

**Conclusion**

Nevada’s mineral industry continued to be a major economic force in the state with a total produced value of over $8 billion in 2019. Given a stable price and regulatory environment this situation should continue for many years to come. Nevada is a major natural resource producer and has significant mineral and energy resources. Major risks to the stability of the minerals industry are withdrawal of federal lands from mineral entry and leasing, and any new state or federal taxes imposed on mineral production.

### Table 4. Nevada Oil Production in 2019

<table>
<thead>
<tr>
<th>Operator</th>
<th>Producing Field</th>
<th># of Producing Wells</th>
<th>Total Barrels Sold</th>
</tr>
</thead>
<tbody>
<tr>
<td>Makoil</td>
<td>Trap Spring</td>
<td>28</td>
<td>123,111</td>
</tr>
<tr>
<td>Kirkwood</td>
<td>Eagle Springs</td>
<td>12</td>
<td>35,525</td>
</tr>
<tr>
<td>Grant Canyon</td>
<td>Grant Canyon</td>
<td>3</td>
<td>33,518</td>
</tr>
<tr>
<td>Grant Canyon</td>
<td>Blackburn</td>
<td>7</td>
<td>22,648</td>
</tr>
<tr>
<td>Western General</td>
<td>Kate Spring</td>
<td>4</td>
<td>20,351</td>
</tr>
<tr>
<td>Kirkwood</td>
<td>Ghost Ranch</td>
<td>3</td>
<td>7,718</td>
</tr>
<tr>
<td>Grant Canyon</td>
<td>Three Bar</td>
<td>1</td>
<td>5,453</td>
</tr>
<tr>
<td>Makoil</td>
<td>Ghost Ranch</td>
<td>1</td>
<td>4,632</td>
</tr>
<tr>
<td>Grant Canyon</td>
<td>Bacon Flat</td>
<td>1</td>
<td>4,593</td>
</tr>
<tr>
<td>Makoil</td>
<td>Kate Spring</td>
<td>1</td>
<td>5,038</td>
</tr>
<tr>
<td>Grant Canyon</td>
<td>Sans Spring</td>
<td>1</td>
<td>1,156</td>
</tr>
<tr>
<td>Tomera Oil Fields</td>
<td>Tomera Ranch</td>
<td>2</td>
<td>372</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td></td>
<td><strong>64</strong></td>
<td><strong>264,115</strong></td>
</tr>
</tbody>
</table>

### Table 5. Nevada Geothermal Production in 2019 by Company

<table>
<thead>
<tr>
<th>Company</th>
<th>Total Output (Sales) MWh</th>
<th>% of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ormat Nevada Inc.</td>
<td>2,678,389</td>
<td>69%</td>
</tr>
<tr>
<td>Terra-Gen Dixie Valley LLC</td>
<td>590,818</td>
<td>15.2%</td>
</tr>
<tr>
<td>Cyq Energy</td>
<td>400,190</td>
<td>10.3%</td>
</tr>
<tr>
<td>Enel North America Inc.</td>
<td>200,785</td>
<td>5.2%</td>
</tr>
<tr>
<td>Homestretch Energy/Whitegrass No. 1 LLC</td>
<td>14,136</td>
<td>0.4%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>3,884,317.9</strong></td>
<td></td>
</tr>
</tbody>
</table>
Geothermal production wells, at McGinness Hills Field, Lander County (Lowell Price photo).

Pumpjack for the Sand Dune 88-35 oil well in the Sand Dune Oil Field, Nye County (Lowell Price photo).
# Index

<table>
<thead>
<tr>
<th>Company Name</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adams Claim Gypsum Mine</td>
<td>5</td>
</tr>
<tr>
<td>Amargosa Clay Operation</td>
<td>19</td>
</tr>
<tr>
<td>Apex Quarry</td>
<td>21</td>
</tr>
<tr>
<td>Argenta Mine</td>
<td>12</td>
</tr>
<tr>
<td>Arturo Mine</td>
<td>14</td>
</tr>
<tr>
<td>Aurora Mine</td>
<td>17</td>
</tr>
<tr>
<td>Bald Mountain Mine</td>
<td>15</td>
</tr>
<tr>
<td>Basalt Diatomite Mine</td>
<td>18</td>
</tr>
<tr>
<td>Betze-Post Mine</td>
<td>11</td>
</tr>
<tr>
<td>Blanco Mine</td>
<td>18</td>
</tr>
<tr>
<td>Borealis Mine</td>
<td>17</td>
</tr>
<tr>
<td>Buff/Satin Mine</td>
<td>8</td>
</tr>
<tr>
<td>Carlin Operations</td>
<td>11</td>
</tr>
<tr>
<td>Churchill Limestone Quarry</td>
<td>16</td>
</tr>
<tr>
<td>Clark Mine</td>
<td>5</td>
</tr>
<tr>
<td>Coeur Rochester Mine</td>
<td>8</td>
</tr>
<tr>
<td>Colado Mine</td>
<td>8</td>
</tr>
<tr>
<td>Cortez Hills Underground Mine</td>
<td>12</td>
</tr>
<tr>
<td>Denton-Rawhide Mine</td>
<td>17</td>
</tr>
<tr>
<td>Empire Gypsum Mine</td>
<td>8</td>
</tr>
<tr>
<td>Fernley Diatomite Operations</td>
<td>16</td>
</tr>
<tr>
<td>Fire Creek Mine</td>
<td>12</td>
</tr>
<tr>
<td>Florida Canyon Mine</td>
<td>8</td>
</tr>
<tr>
<td>Gold Bar Mine</td>
<td>11</td>
</tr>
<tr>
<td>Greystone Mine</td>
<td>12</td>
</tr>
<tr>
<td>Hazen Mine</td>
<td>17</td>
</tr>
<tr>
<td>Heart of Nature</td>
<td>19</td>
</tr>
<tr>
<td>Hollister Mine</td>
<td>14</td>
</tr>
<tr>
<td>Huck Salt</td>
<td>17</td>
</tr>
<tr>
<td>Hycroft Mine</td>
<td>6</td>
</tr>
<tr>
<td>Isabellal Pearl Mine</td>
<td>17</td>
</tr>
<tr>
<td>Jerritt Canyon Mine</td>
<td>14</td>
</tr>
<tr>
<td>Lima Nevada Gypsum Mine</td>
<td>21</td>
</tr>
<tr>
<td>Lone Tree Complex</td>
<td>6</td>
</tr>
<tr>
<td>Long Canyon Mine</td>
<td>14</td>
</tr>
<tr>
<td>Ludwig Mine</td>
<td>5</td>
</tr>
<tr>
<td>Maggie Creek Operation</td>
<td>11</td>
</tr>
<tr>
<td>Marigold Mine</td>
<td>7</td>
</tr>
<tr>
<td>Meikle Mine</td>
<td>15</td>
</tr>
<tr>
<td>Midas Mine</td>
<td>15</td>
</tr>
<tr>
<td>MIN-AD Mine</td>
<td>7</td>
</tr>
<tr>
<td>Mineral Ridge Mine</td>
<td>19</td>
</tr>
<tr>
<td>Mt. Moriah Quarry</td>
<td>15</td>
</tr>
<tr>
<td>Mountain Spring Mine</td>
<td>12</td>
</tr>
<tr>
<td>NCC Flanigan Mine</td>
<td>5</td>
</tr>
<tr>
<td>NCC Fernley Operations</td>
<td>5</td>
</tr>
<tr>
<td>NCC Mustache Mine</td>
<td>5</td>
</tr>
<tr>
<td>New Discovery Mine</td>
<td>19</td>
</tr>
<tr>
<td>Nightingale Mine</td>
<td>17</td>
</tr>
<tr>
<td>PABCO Gypsum Mine</td>
<td>21</td>
</tr>
<tr>
<td>Pan Mine</td>
<td>15</td>
</tr>
<tr>
<td>Perlite Mine</td>
<td>17</td>
</tr>
<tr>
<td>Phoenix Mine</td>
<td>13</td>
</tr>
<tr>
<td>Pilot Peak Quarry</td>
<td>15</td>
</tr>
<tr>
<td>Pipeline Mine</td>
<td>12</td>
</tr>
<tr>
<td>Premier Magnesia</td>
<td>19</td>
</tr>
<tr>
<td>Rainbow Quarry</td>
<td>21</td>
</tr>
<tr>
<td>Relief Canyon Limestone Quarry</td>
<td>8</td>
</tr>
<tr>
<td>Robinson Mine</td>
<td>15</td>
</tr>
<tr>
<td>Rossi Mine</td>
<td>15</td>
</tr>
<tr>
<td>Round Mountain Mine</td>
<td>19</td>
</tr>
<tr>
<td>Ruby Hill Mine</td>
<td>11</td>
</tr>
<tr>
<td>Silver Peak Lithium Operations</td>
<td>19</td>
</tr>
<tr>
<td>Simplot Silica Products</td>
<td>21</td>
</tr>
<tr>
<td>Slaven Canyon Mine</td>
<td>13</td>
</tr>
<tr>
<td>South Area Operations</td>
<td>15</td>
</tr>
<tr>
<td>Sterling Mine</td>
<td>19</td>
</tr>
<tr>
<td>Sunrise Placer Mine</td>
<td>8</td>
</tr>
<tr>
<td>Tenacity Perlite Mine</td>
<td>21</td>
</tr>
<tr>
<td>Turquoise Ridge Underground Mine</td>
<td>7</td>
</tr>
<tr>
<td>Twin Creeks Mine</td>
<td>7</td>
</tr>
</tbody>
</table>

*Suggested Citation:*
The Nevada Bureau of Mines and Geology

The Nevada Bureau of Mines and Geology (NBMG) is a research and public service unit of the University of Nevada, Reno (UNR) and is the state geological survey, applying its expertise across the entire state. NBMG is part of the Mackay School of Earth Sciences and Engineering within the College of Science at UNR.

NBMG scientists conduct research and publish reports on mineral resources, engineering geology, environmental geology, hydrogeology, geologic hazards, and geologic mapping. Individuals interested in Nevada geology are encouraged to visit, call, write NBMG, or visit our website.

http://www.nbmg.unr.edu

Most NBMG scientists (Director and research faculty), cartographic, and administrative staff are located on the University of Nevada campus, 775-794-6691.

U.S. Mail: Nevada Bureau of Mines and Geology Mail Stop 178 University of Nevada Reno, NV 89557-0178
UPS or Federal Express: Nevada Bureau of Mines and Geology University of Nevada / Mail Stop 178 1664 N. Virginia Street Reno, NV 89503

Publication Sales and Information Office

Nevada Bureau of Mines and Geology Great Basin Science Sample and Records Library 2175 Raggio Parkway Reno, NV 89512

Please contact the Publication Sales Office to purchase NBMG geologic maps and reports and U.S. Geological Survey geologic maps, publications, and topographic maps. Walk-in customers, please note: The cash register closes at 3:00 p.m. (Tuesday–Friday).

Phone: (775) 682-8766 (Tuesday–Friday, 8:00 a.m.–3:00 p.m., PST)
E-mail: nbmg@unr.edu
Web: www.nbmg.unr.edu

Please contact the Information Office for information on aerial photographs; cuttings, core, and well records for oil, gas, and geothermal; and general geological information.

Phone: (775) 682-8767 (Tuesday–Friday, 8:00 a.m.–3:00 p.m., PST)
E-mail: nbmg@unr.edu

The University of Nevada, Reno is an Equal Opportunity/Affirmative Action employer and does not discriminate on the basis of race, color, religion, sex, age, creed, national origin, veteran status, physical or mental disability, and in accordance with university policy, sexual orientation, in any program or activity it operates. The University of Nevada, Reno employs only United States citizens and aliens lawfully authorized to work in the United States.

First edition, first printing, 1,000 copies, 2020
Printed by Allegra Print and Imaging, Reno, Nevada