



Exploration roads and historic mines, Humboldt Range.

# NEVADA

## Stake Your Claim

- ▶ Fraser Institute Survey 2016 ranks Nevada 4th among 104 jurisdictions globally for **Investment Attractiveness** (combines exploration potential with favorable regulations)
- ▶ Nevada consistently ranks in the top 10 worldwide in the Fraser Investment Attractiveness Index:
  - **2015:** 3rd of 109; **2014:** 1st of 122; **2013:** 2nd of 96; **2012:** 2nd of 112
- ▶ Nevada captured 47% of the U.S. total non-ferrous exploration budget in 2016 (S&P Global)

### ▶ What Nevada produced in 2016:

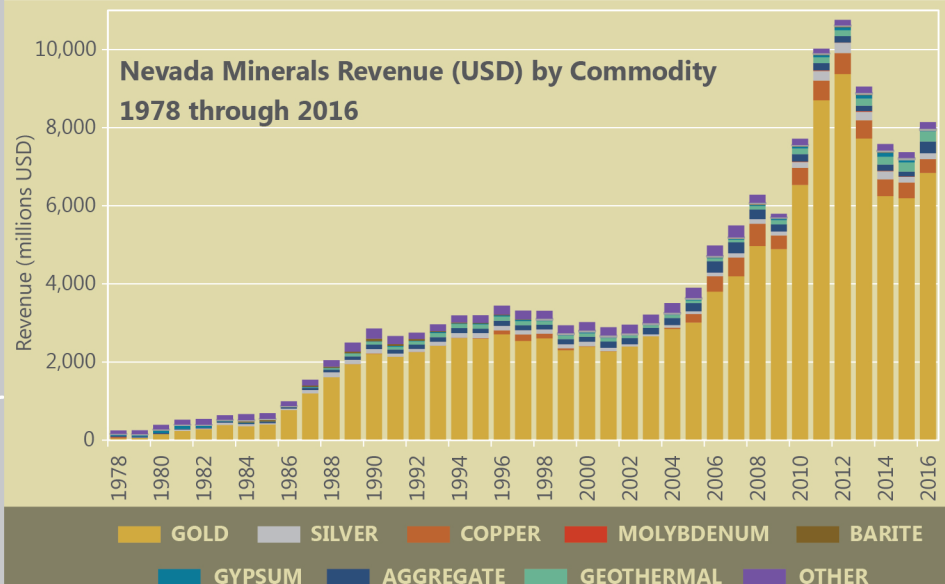
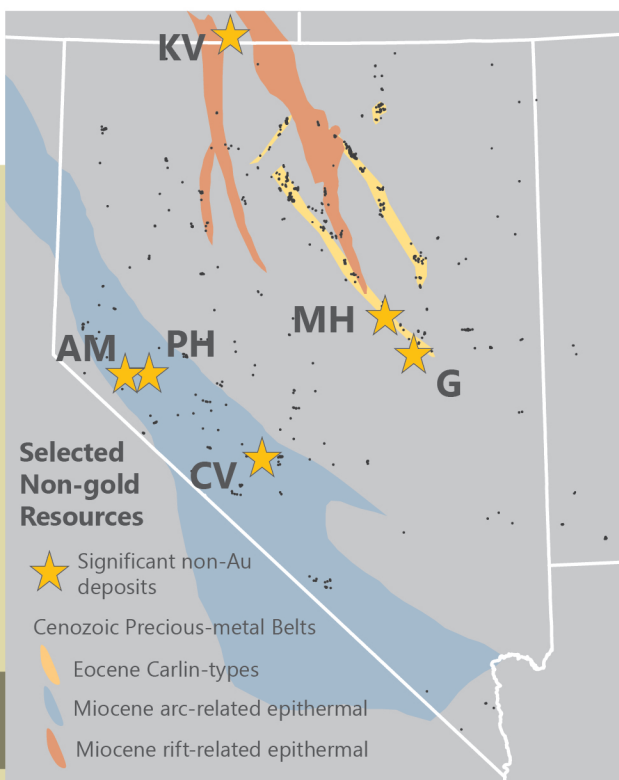
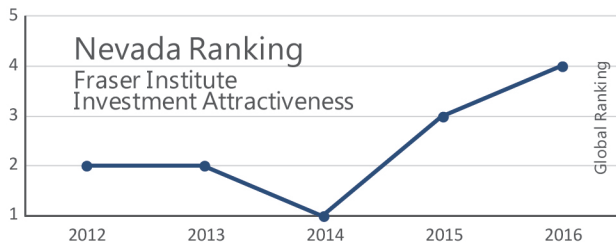
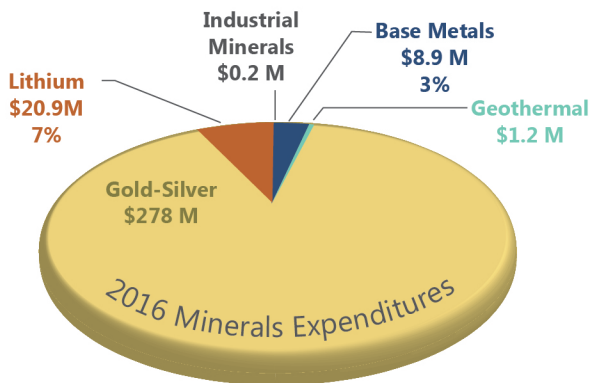
- **Gold: 5.47 Moz** (\$6.84B USD) — #1 in U.S. (81% of U.S. production), and #4 in the world behind only China, Australia, and Russia
- Other commodities in order of value: Copper, Silver, Geothermal Energy, Aggregates, Diatomite, Limestone, Gypsum, Lithium, Barite, Silica, Specialty Clays, Molybdenite
- Nevada is the only US producer of Li, and is a leading producer of Ag, Cu, geothermal energy, barite, & diatomite

- ▶ Nevada gold production since Carlin mine start-up in 1965: **199.5 million troy ounces**; highest production of any regional jurisdiction or province during the past half century.

- ▶ At least \$325 M was spent on exploration in Nevada in 2016, down from a peak of \$675 M in 2011 (Sources: NDOM/NBMG exploration surveys 2011, 2015/2016); outlook was for increased spending in 2017

- ▶ Significant non-gold resources include (lower left map figure):

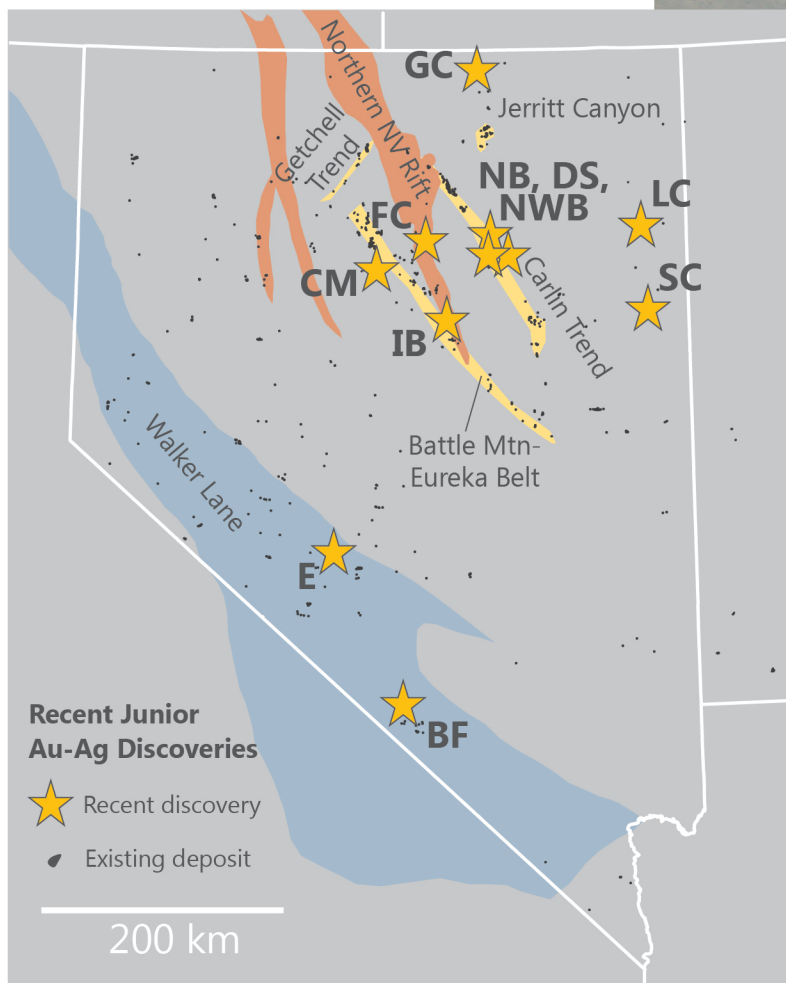
- Clayton Valley (**CV**) lithium brine operations (Albermarle Corp.)
- Kings Valley (**KV**) lithium clay deposit (Lithium Americas Corp.)
- Mount Hope (**MH**) Climax-type porphyry Mo (General Moly Inc.)
- Pumpkin Hollow (**PH**) copper skarn (Nevada Copper Corp.)
- Ann-Mason (**AM**) copper porphyry (Mason Resources)
- Gibellini (**G**) black shale-hosted vanadium (Prophecy Development Corp.)



# DISCOVER NEVADA

## Significant Junior Gold-Silver Discoveries, 2000–2017

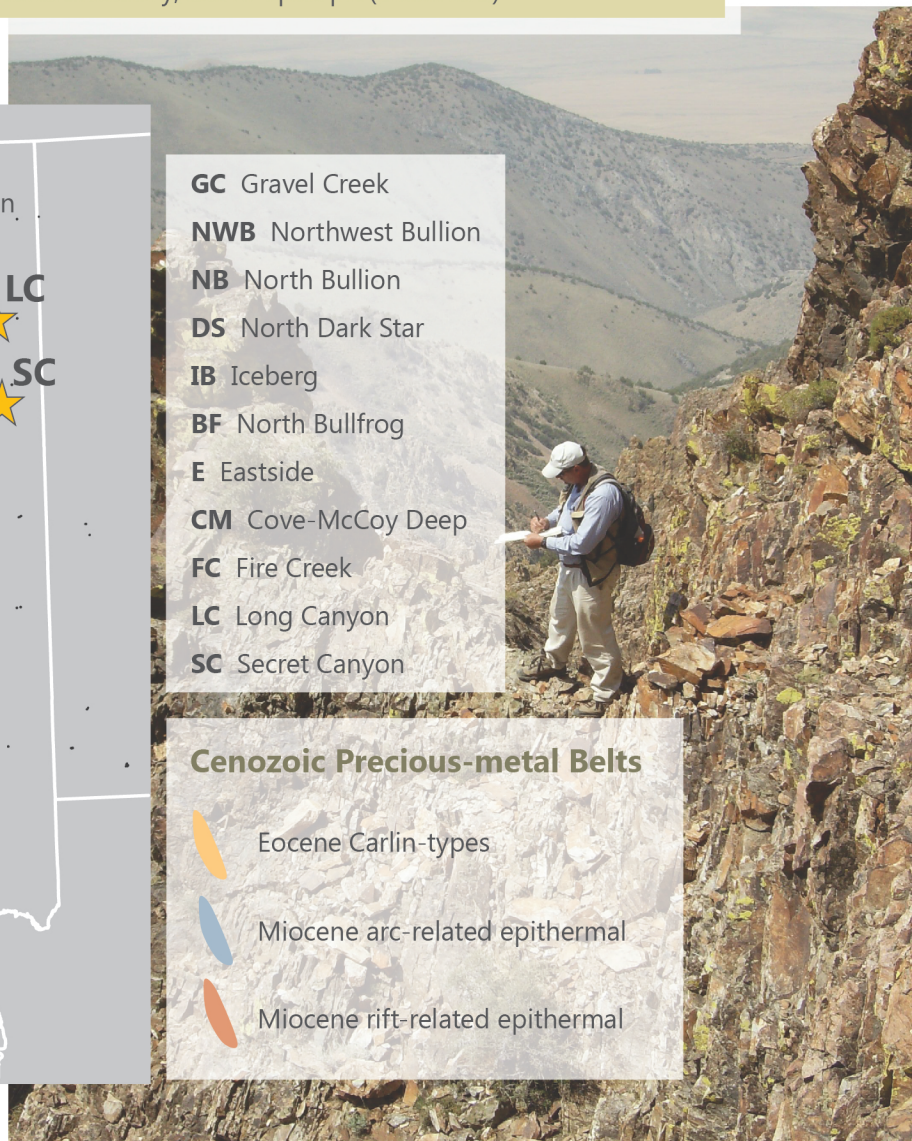
|           |  |
|-----------|--|
| 2017      | NW Bullion, Gold Standard, grassroots discovery in early exploration-stage         |
| 2016      | North Dark Star, Gold Standard, brownfields discovery, in advanced exploration     |
| 2015      | Secret Canyon, Pilot Gold, brownfields discovery, in advanced exploration          |
| 2013      | Gravel Creek, Western Exploration, grassroots discovery in advanced exploration    |
| 2012      | Iceberg, NuLegacy, grassroots discovery in early exploration-stage                 |
| 2011–2013 | North Bullfrog, Corvus Gold, grassroots discovery in advanced exploration          |
| 2011–2013 | Eastside, Columbus Gold (Cordex), grassroots discovery in advanced exploration     |
| 2010      | North Bullion, Gold Standard, grassroots discovery in advanced exploration         |
| 2006      | Cove-McCoy Deep, Victoria Resources, brownfields discovery in advanced exploration |
| 2004      | Fire Creek, Klondex, grassroots discovery; active underground mine                 |
| 2000      | Long Canyon, Pittston, grassroots discovery; active open pit (Newmont)             |



**GC** Gravel Creek  
**NWB** Northwest Bullion  
**NB** North Bullion  
**DS** North Dark Star  
**IB** Iceberg  
**BF** North Bullfrog  
**E** Eastside  
**CM** Cove-McCoy Deep  
**FC** Fire Creek  
**LC** Long Canyon  
**SC** Secret Canyon

### Cenozoic Precious-metal Belts

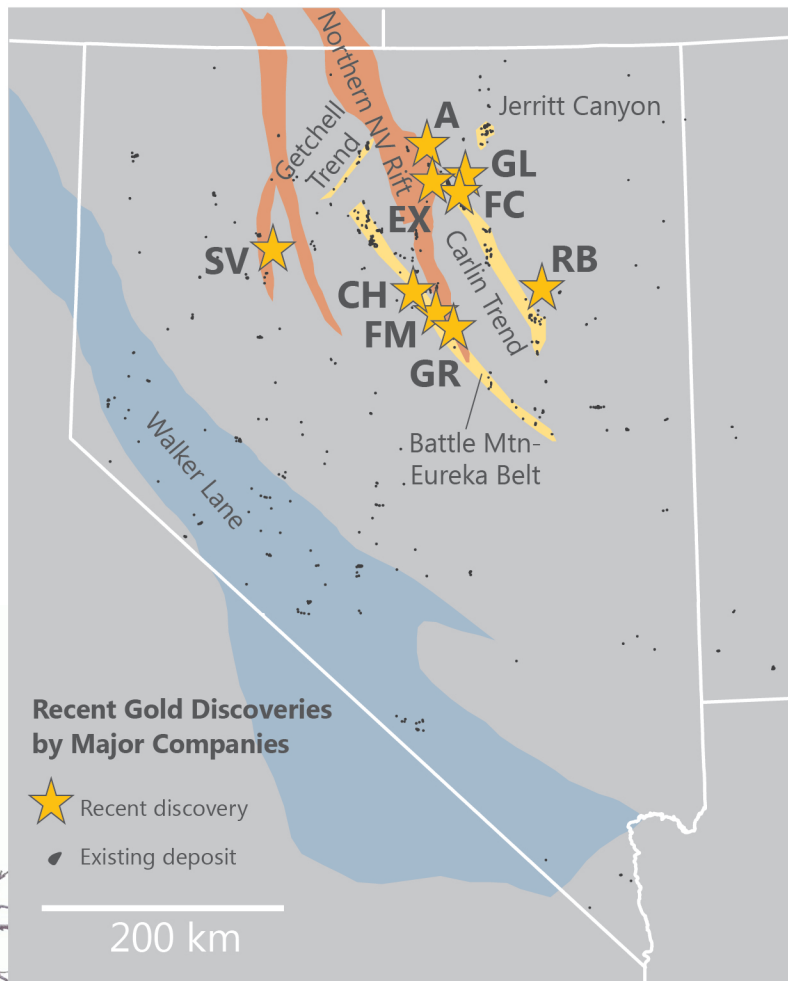
- Eocene Carlin-types
- Miocene arc-related epithermal
- Miocene rift-related epithermal








# NEVADA

## Golden Opportunity



- FM** Fourmile
- FC** Fence Corridor
- GR** Goldrush
- GL** Greater Leeville
- RB** Redbird
- A** Arturo
- EX** Exodus Corridor
- CH** Cortez Hills
- SV** Spring Valley

### Cenozoic Precious-metal Belts

-  Eocene Carlin-type and related Au
-  Miocene arc-related epithermal
-  Miocene rift-related epithermal

### Brownfields Gold Discoveries by Majors, 2000–2017

|           |   |
|-----------|---|
| 2015      | Fourmile, Barrick, exploration-stage; no published resource yet                       |
| 2013      | Fence Corridor U.G., Newmont, u.g. development, +5Moz production + resource           |
| 2011      | Goldrush, Barrick, u.g. development, 15.9 Moz resource                                |
| 2009–2011 | Greater Leeville, Newmont, active u.g. mines, ~16 Moz production + resource           |
| 2007      | Redbird deposit, Bald Mountain district, Barrick, active pit                          |
| 2005      | Arturo, Barrick, active pit, 4.5 Moz production + resource                            |
| 2003      | Exodus Corridor, Newmont, active u.g. mine, +3 Moz production + resource              |
| 2002–2003 | Cortez Hills, Placer Dome, active pit/u.g., ~13 Moz production + resource             |
| 2000      | Spring Valley, Echo Bay, grassroots discovery; 4.2 Moz resource, advanced exploration |



# DATA MINING for Explorationists

## Nevada State Resources

- ▶ **Nevada Division of Minerals** (NDOM): agency tasked to encourage responsible exploration and extraction of natural resources. Responsibilities include permitting and monitoring of natural resource activities, natural resource policy advisement, abandoned mine hazard awareness, education, and mining production and claims statistics; general information on mining and exploration: <http://minerals.nv.gov>
- ▶ **Nevada Bureau of Mines and Geology** (NBMG; Nevada's geological survey): minerals research, geologic mapping, mineral industry annual reports, exploration surveys, regional and district bulletins and reports, web-based GIS maps, mining district files, exploration sample repository: <https://nbgm.unr.edu>
- ▶ **Governor's Office of Economic Development** (GoED): <https://pubs.er.usgs.gov>

## Exploration and Mining Organizations

- ▶ **Geological Society of Nevada** (GSN): publications, meetings, symposia, field trips focused on geology of Nevada, especially as it pertains to natural resources; chapters in Reno, Las Vegas, Elko, and Winnemucca: <http://gsnv.org>
- ▶ **Nevada Minerals Exploration Coalition** (NMEC): advocacy group for Nevada exploration through public discourse, education, and government interaction: <https://nvmecc.org>
- ▶ **Nevada Mining Association** (NMA): helping to support and sustain the mining industry in Nevada through policy forums and education: <http://nevadamining.org/>

## Academic Departments

- ▶ **Ralph J. Roberts Center for Research in Economic Geology** (CREG), University of Nevada, Reno: graduate research in economic geology with a focus on the Great Basin: <http://nbgm.unr.edu/CREG/>
- ▶ University of Nevada, Reno **W.M. Keck Earth Sciences and Mining Research**: <http://keck.library.unr.edu>

## Federal Agencies

- ▶ **Bureau of Land Management**: <https://www.blm.gov/programs/energy-and-minerals/mining-and-minerals/about/Nevada>; claim staking: <https://blm.gov/programs/energy-and-minerals/mining-and-minerals/mining-claims>; BLM LR-2000 claim status online: <https://reports.blm.gov/reports.cfm?application=LR2000>



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