

UPDATE ON NEVADA MINERAL PRODUCTION AND EXPLORATION

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John Muntean¹, and Doug Driesner²

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(www.nbmng.unr.edu)



University of Nevada, Reno
Statewide • Worldwide

²Nevada Division of Minerals
(minerals.state.nv.us)



Photo credits to Mike Visher, Jeff Scovil, JGP, and others

THE MAIN POINT

10 Year Gold

High 1900.30 Low 272.10



**Nevada is a really great place to
explore for and mine gold -
and many other mineral commodities.**

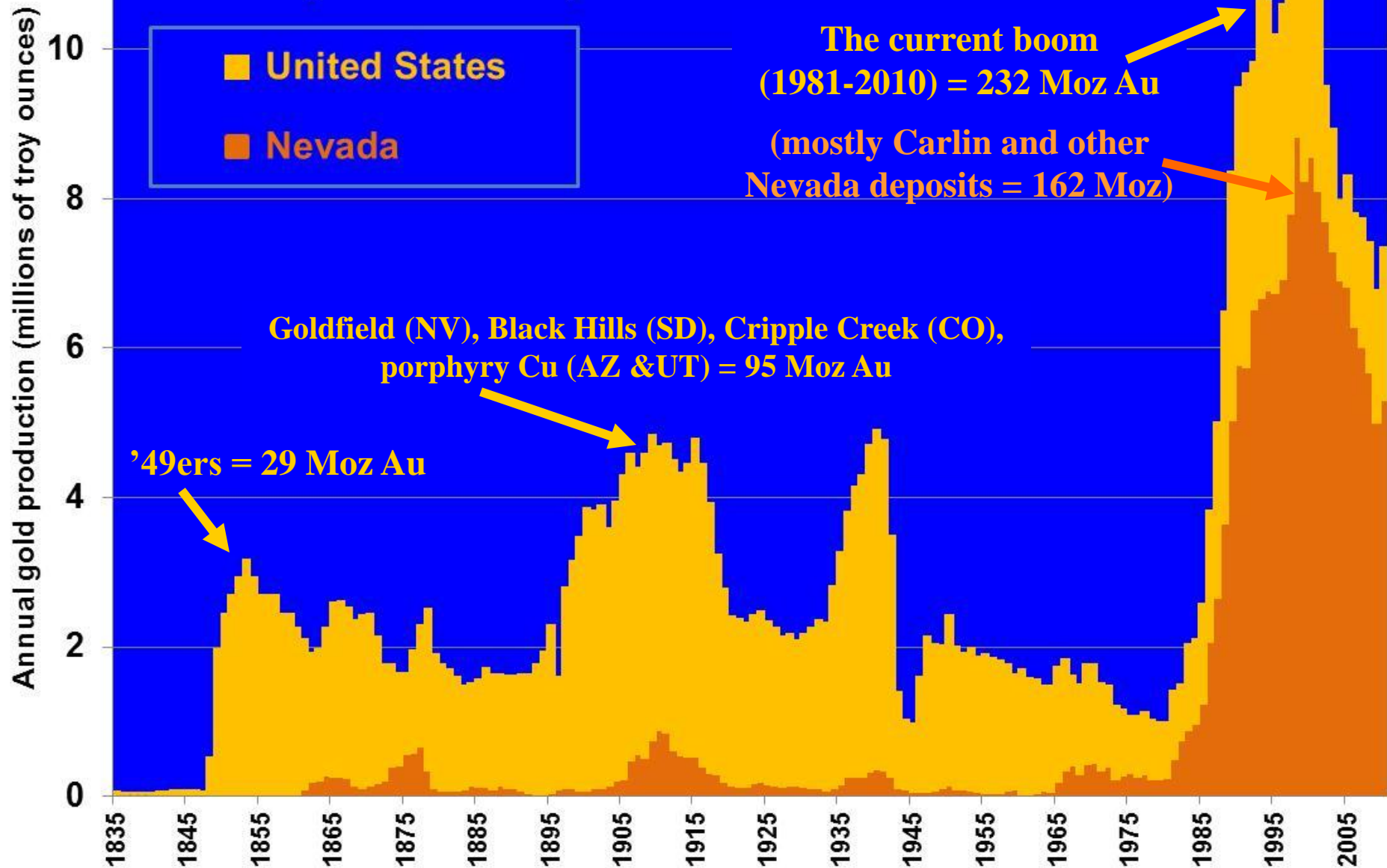
www.kitco.com

Based on New York Close

NEVADA MINING INFO

- **Major Mines of Nevada**
- **Nevada Exploration Survey**
 - **NDOM** (<http://minerals.state.nv.us>)
- **The Nevada Mineral Industry**
 - **NBMG** (www.nbmng.unr.edu)
- **Economic Overview of the Nevada Mining Industry**
 - **NvMA** (www.nevadamining.org)

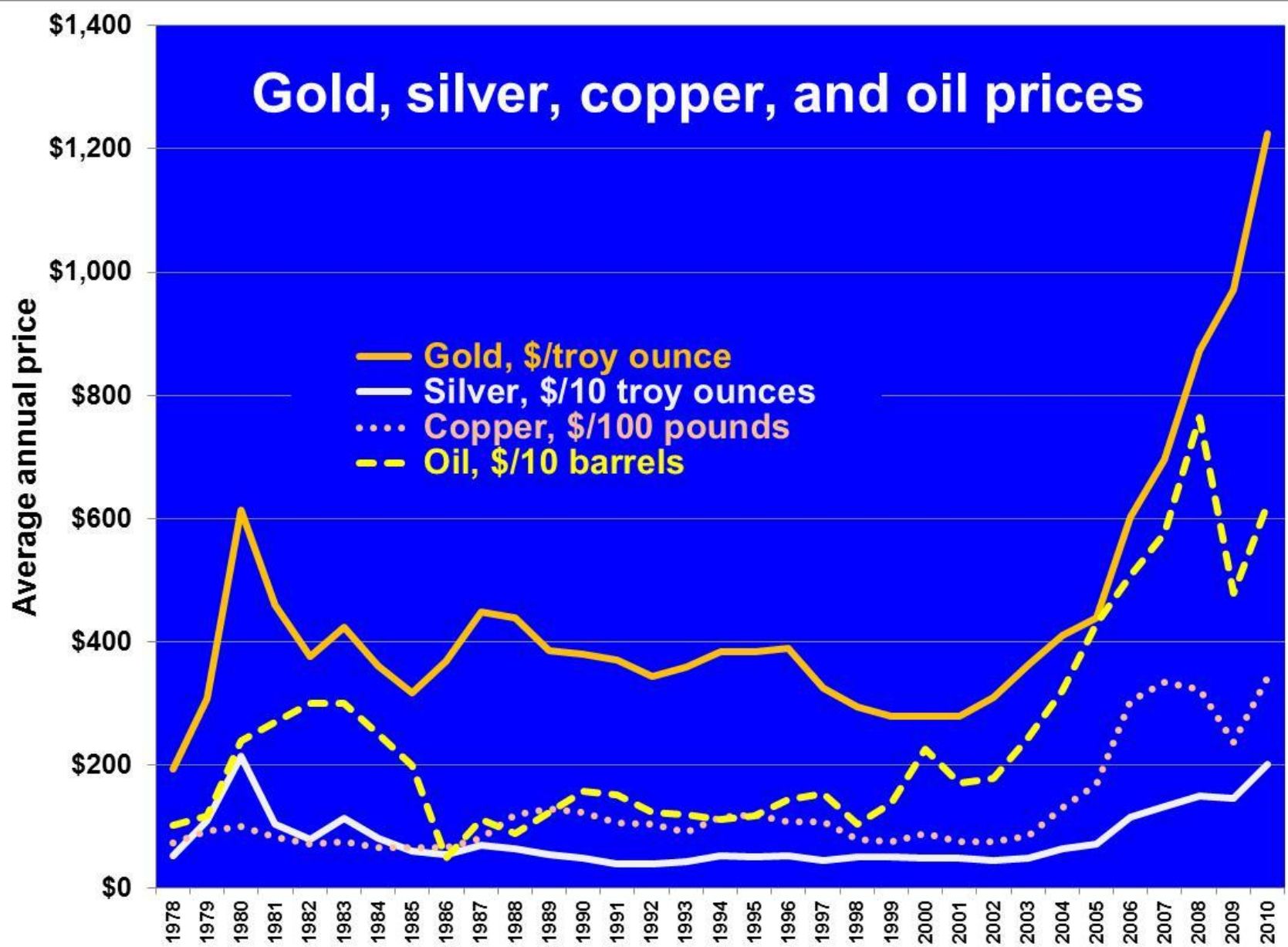
Gold production, 1835-2010



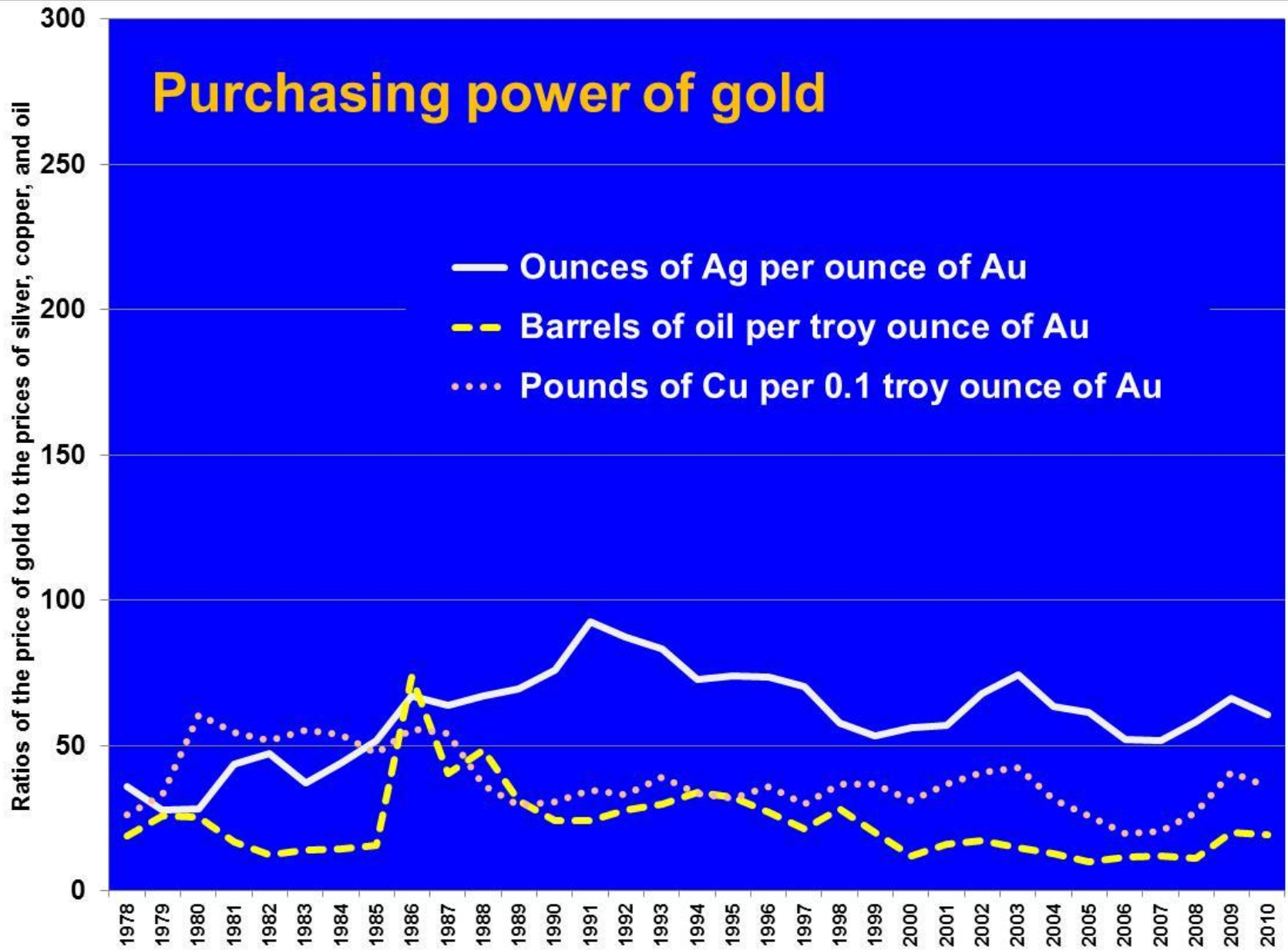
We are in the midst of the biggest gold-mining boom in American history.



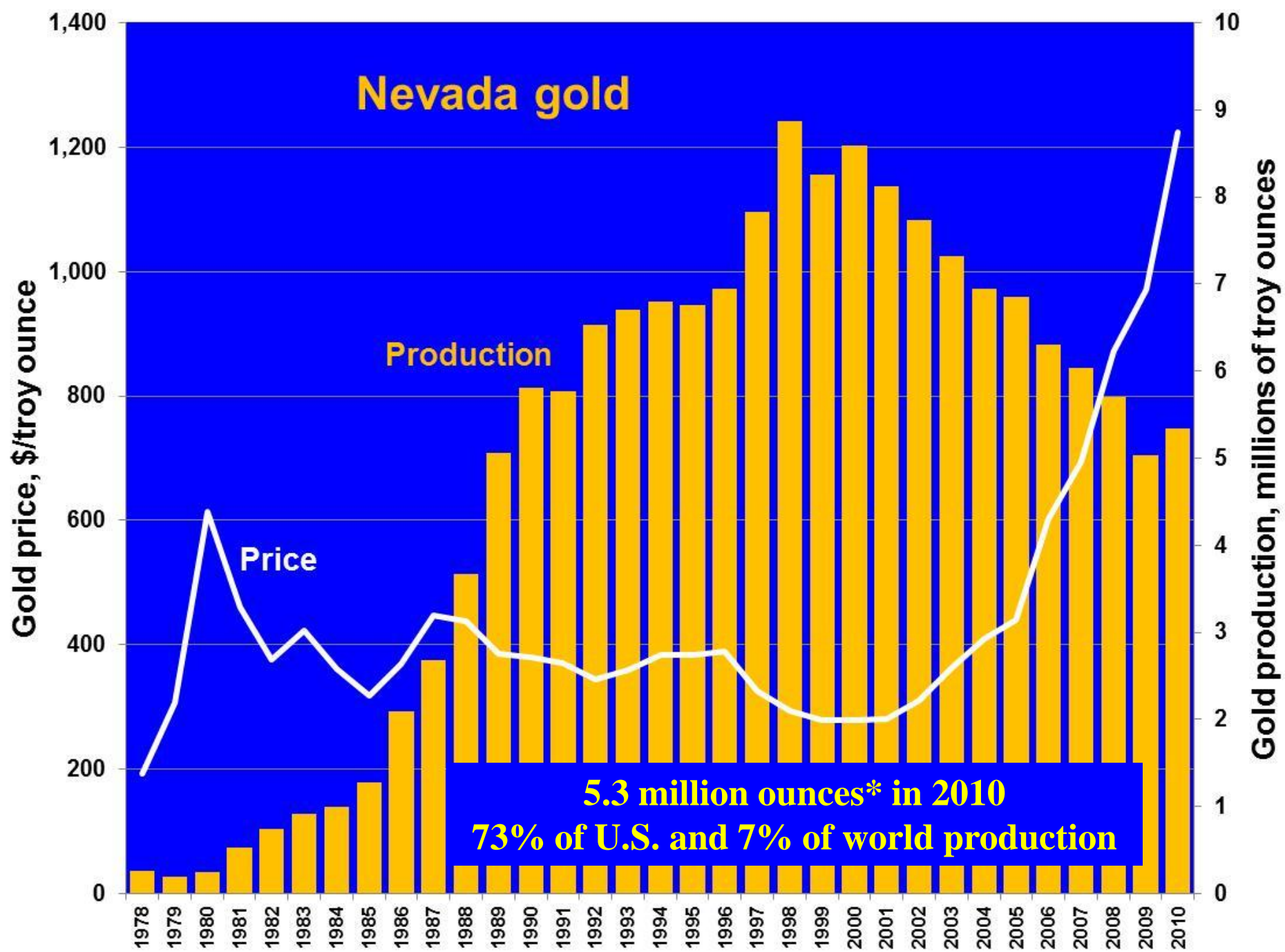
The average annual price of gold is reaching the inflation-adjusted historical high; \$613/ounce in 1980 = \$1,689/ounce in 2011, when adjusted for inflation.

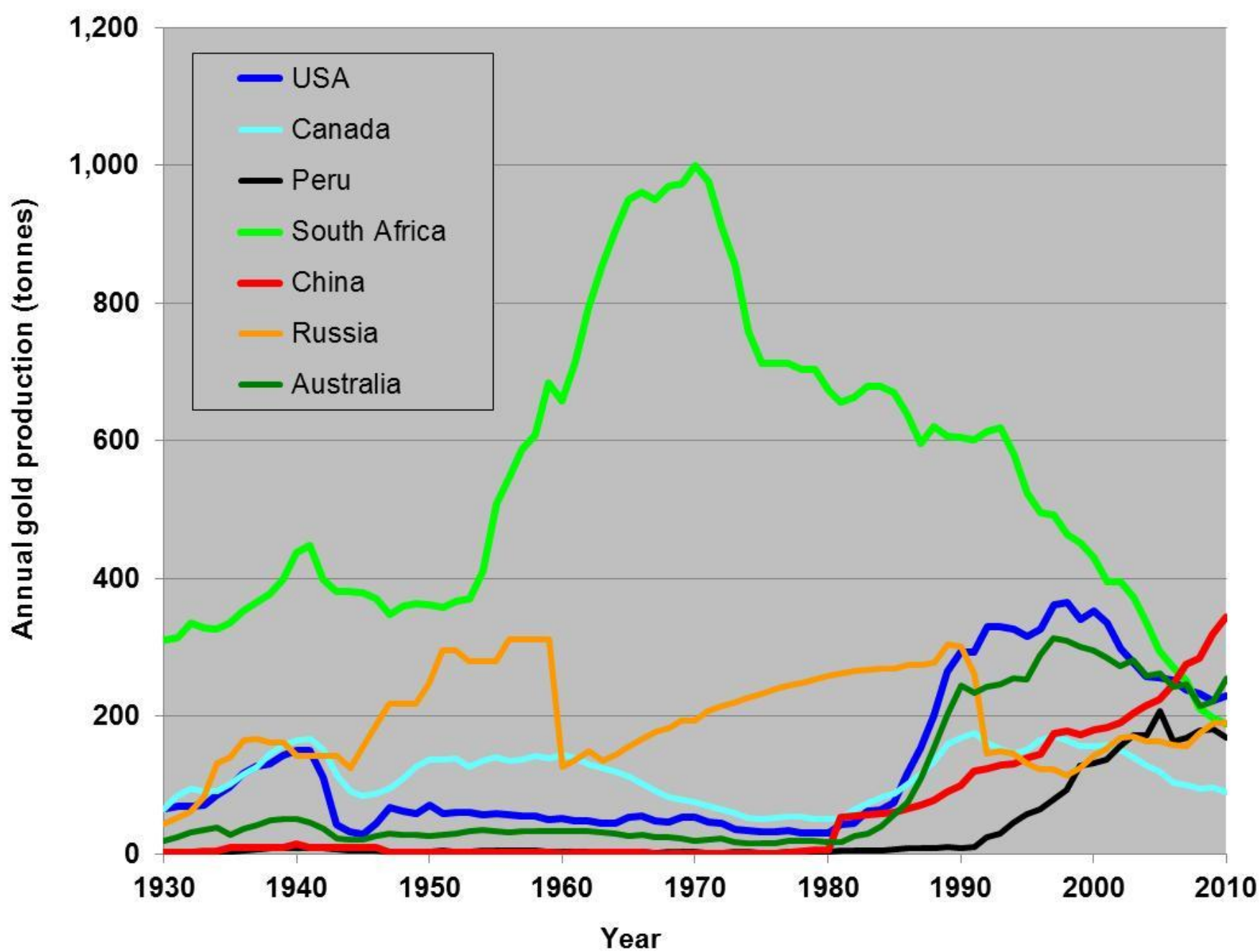


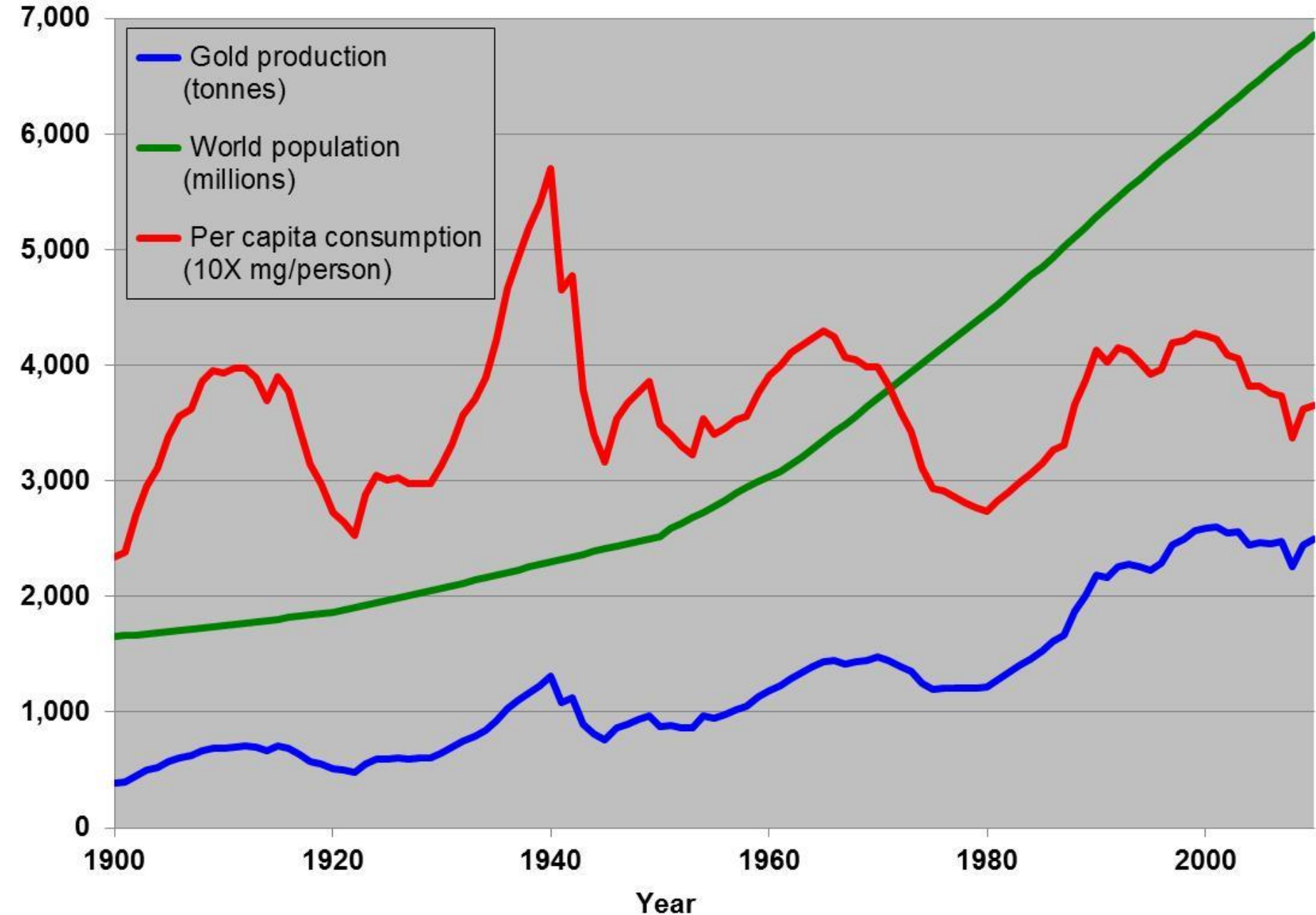
In general, the prices of commodity prices have risen in recent years.



In general, gold has kept its purchasing power over the years.







We are approaching the all-time high in global gold production: 2,500 tonnes in 2010 versus 2,600 tonnes in 2001.

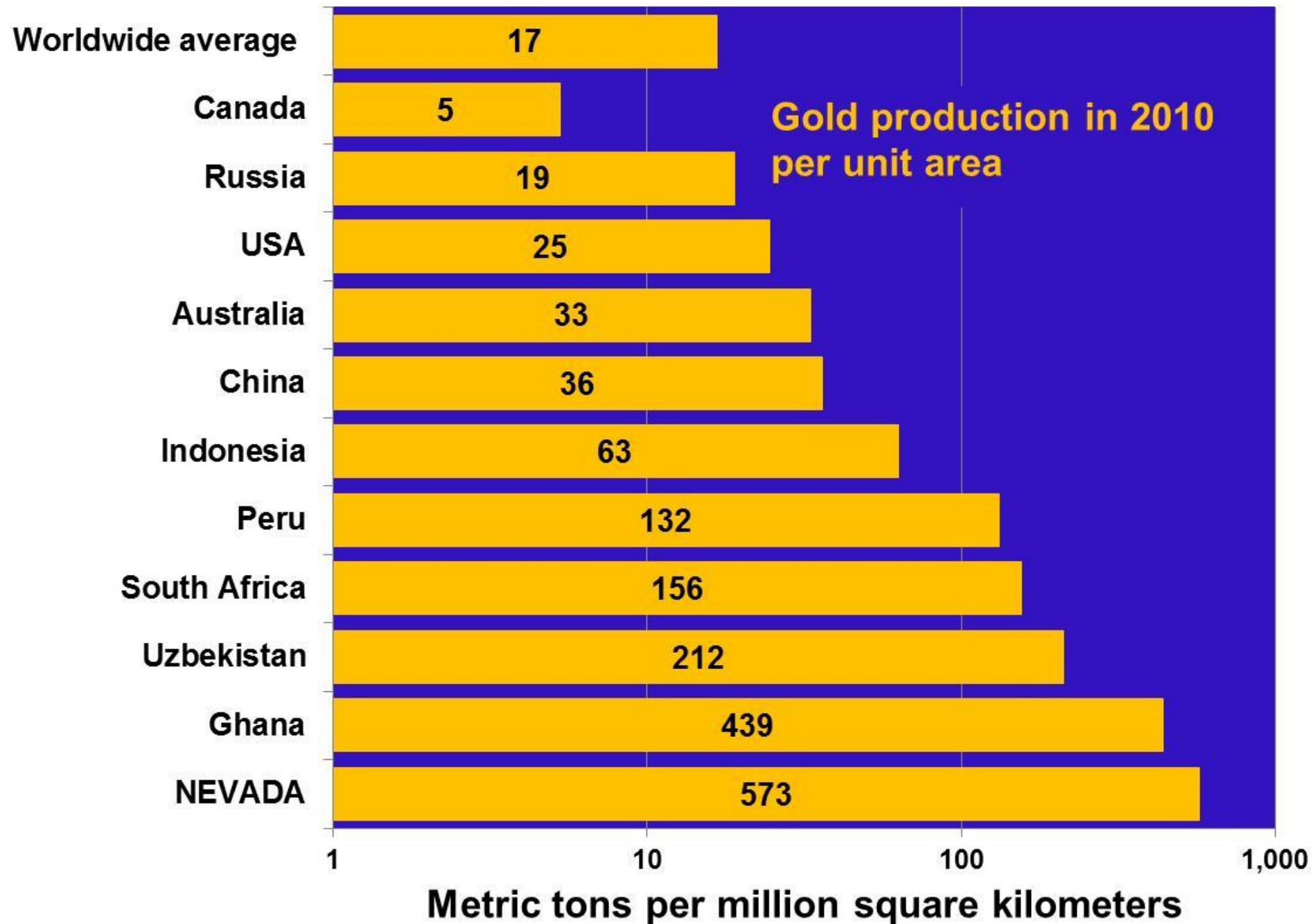
Barrick's Betze pit, 2000



Newmont's Carlin East pit and portal, 2000



Global gold production in 2010 (2,500 metric tons) approximately equaled the cumulative production from the Carlin trend (2,373 tons), one of world's top regions.



Nevada is certainly one of the best places , if not the best, to explore for and mine gold.

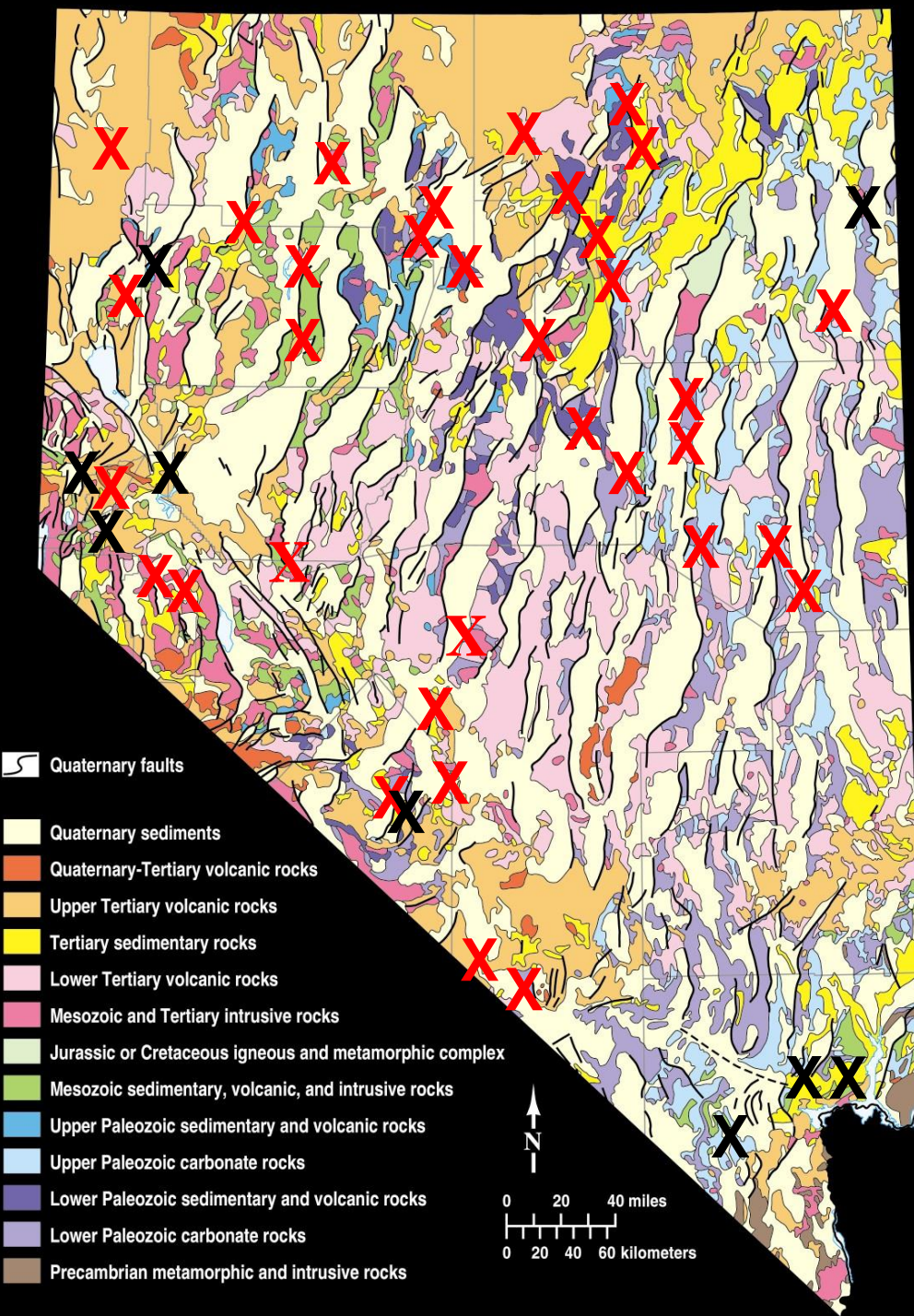
**20 major gold operations
(10 not on the Carlin
trend with production
>100,000 ounces in 2010)**

Major Mines, Oil Fields, and Geothermal Plants

- Precious Metals
- Industrial Minerals
- ▼ Copper and Molybdenum
- Oil Field
- Geothermal Plant



Trends of Mineral Deposits

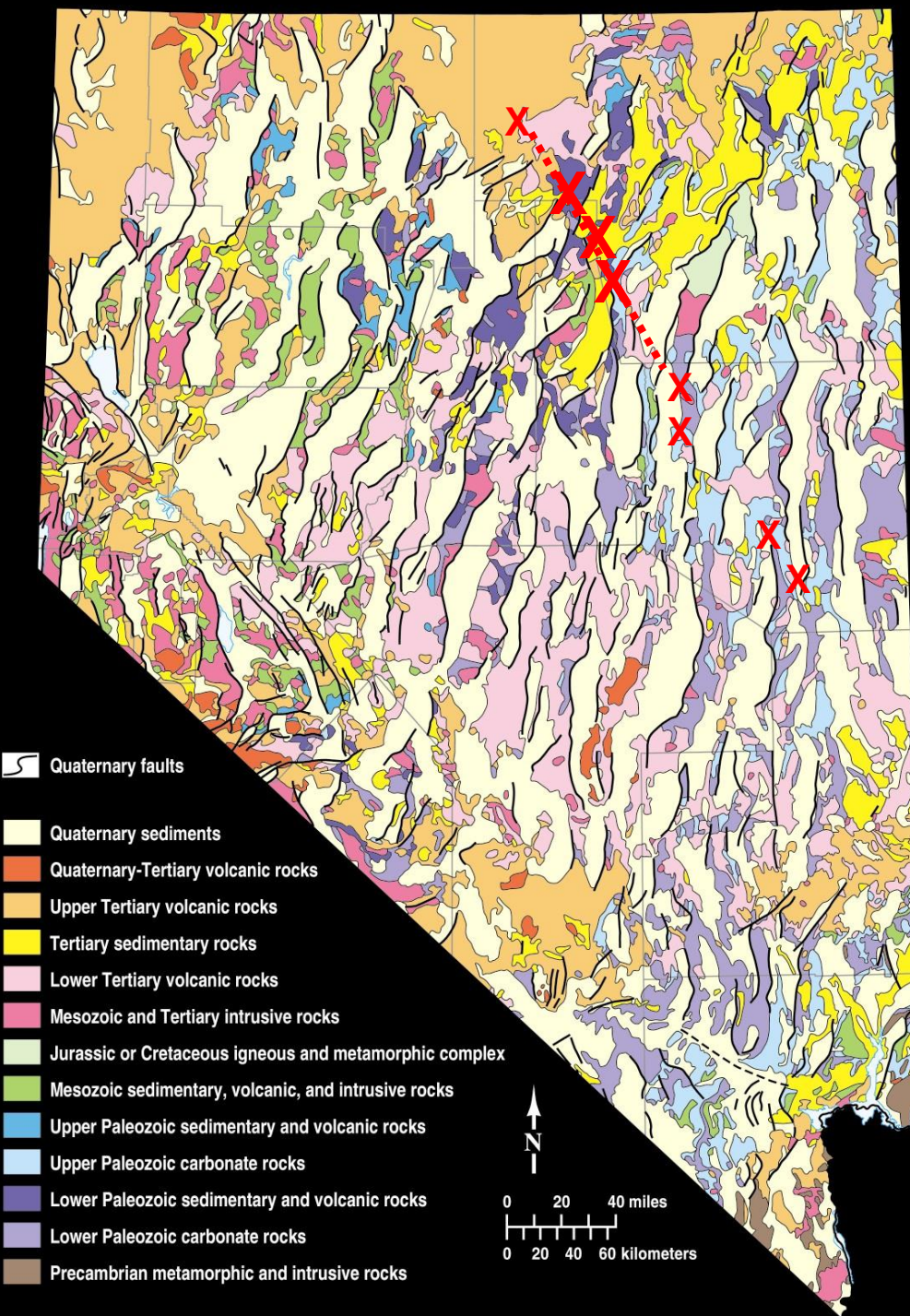


X Metals (mostly Au, Cu, Ag)

X Industrial minerals

Trends of Mineral Deposits

Carlin trend –
accounted for 41% of
Nevada gold production in
2010, down from 54% in
2008 and 50% in 2009.



X Metals (mostly Au, Cu, Ag)

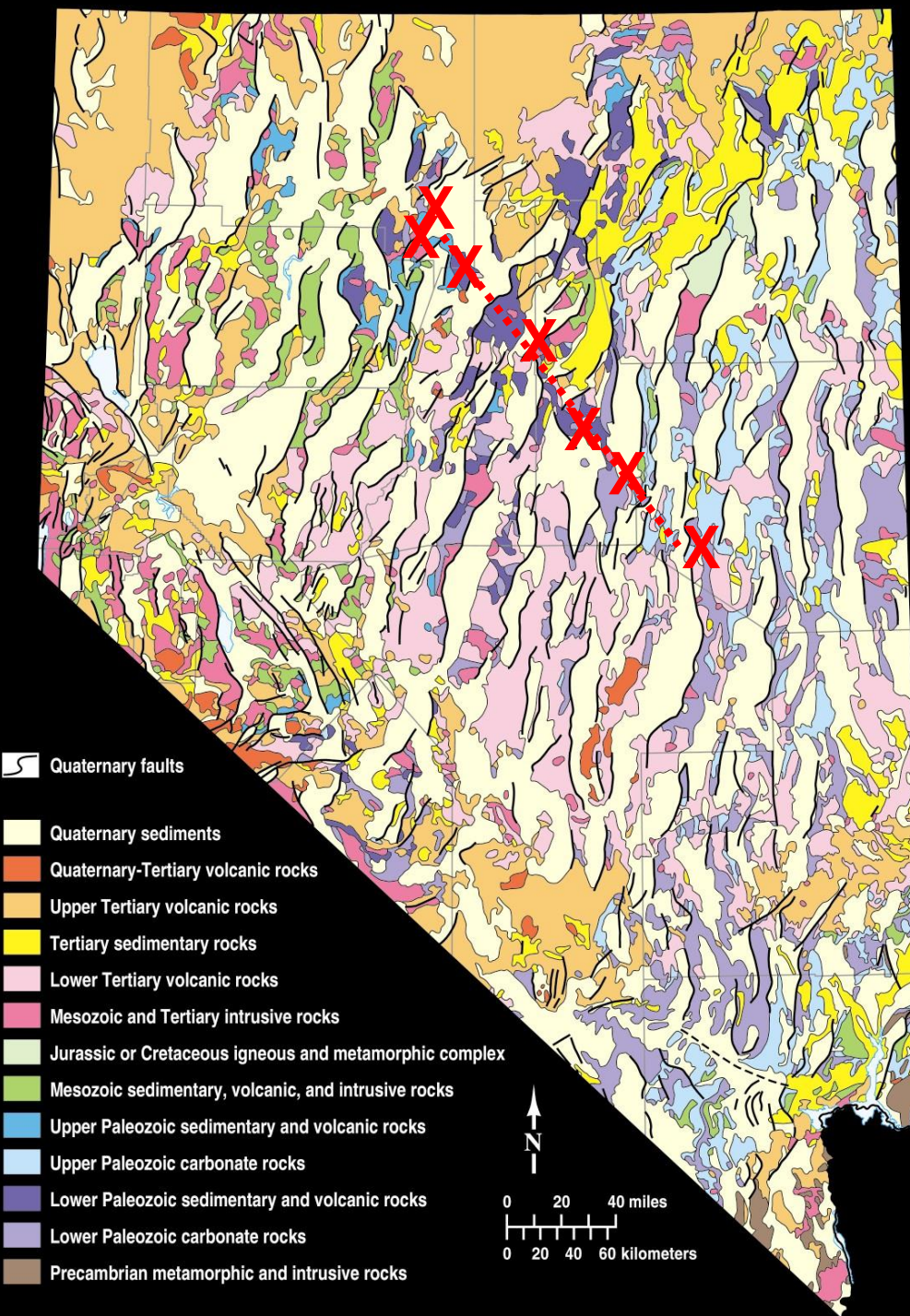
Trends of Mineral Deposits

Battle Mountain-Eureka trend

(aka Cortez trend and with Turquoise Ridge and Twin Creeks included) –

Seven deposits last year produced >100,000 oz of gold, including Cortez (Pipeline + Cortez Hills) at 1,139,976 oz Au, up substantially from 517,512 oz Au in 2009.

X Metals (mostly Au, Cu, Ag)



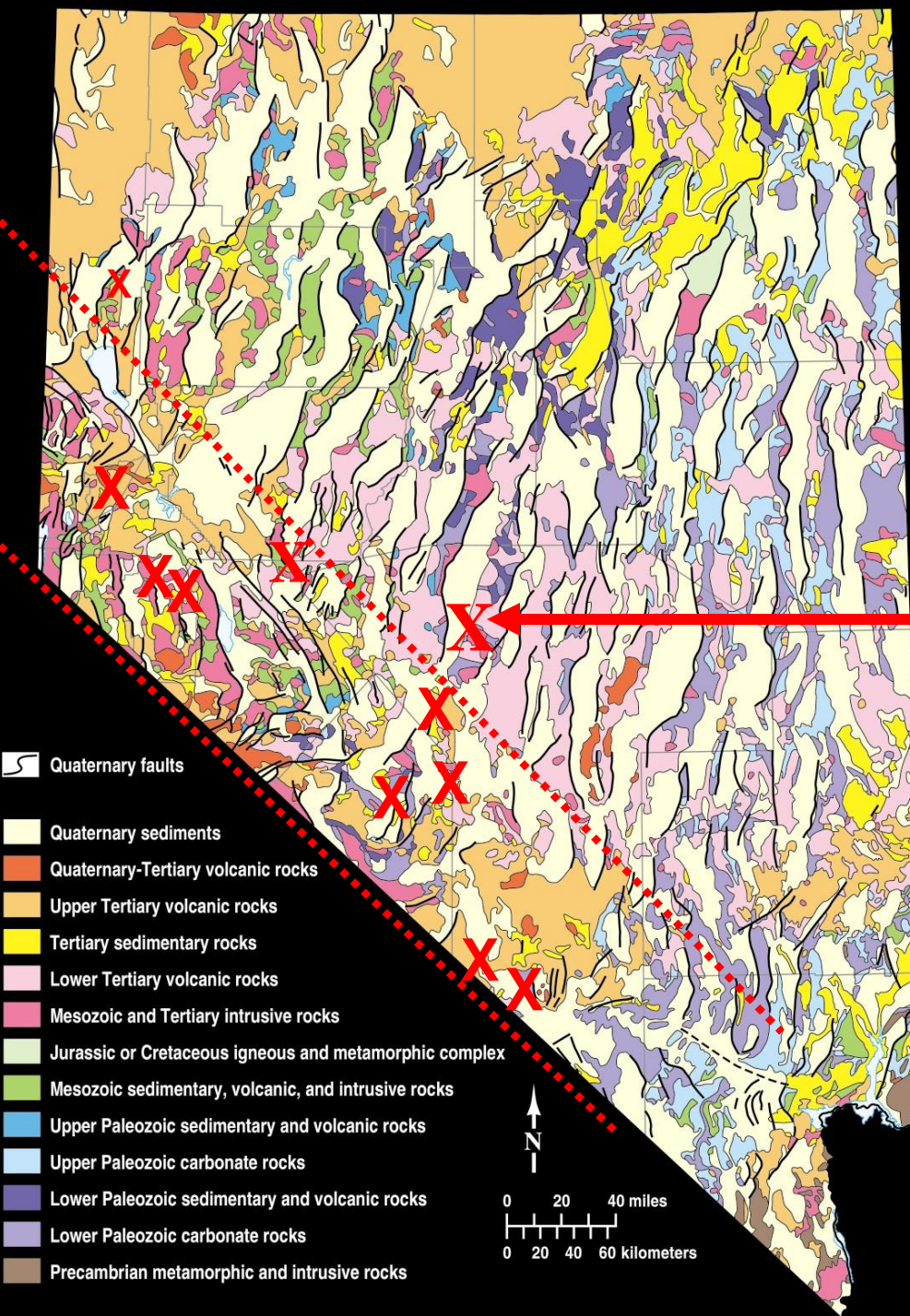
Trends of Mineral Deposits

Walker Lane

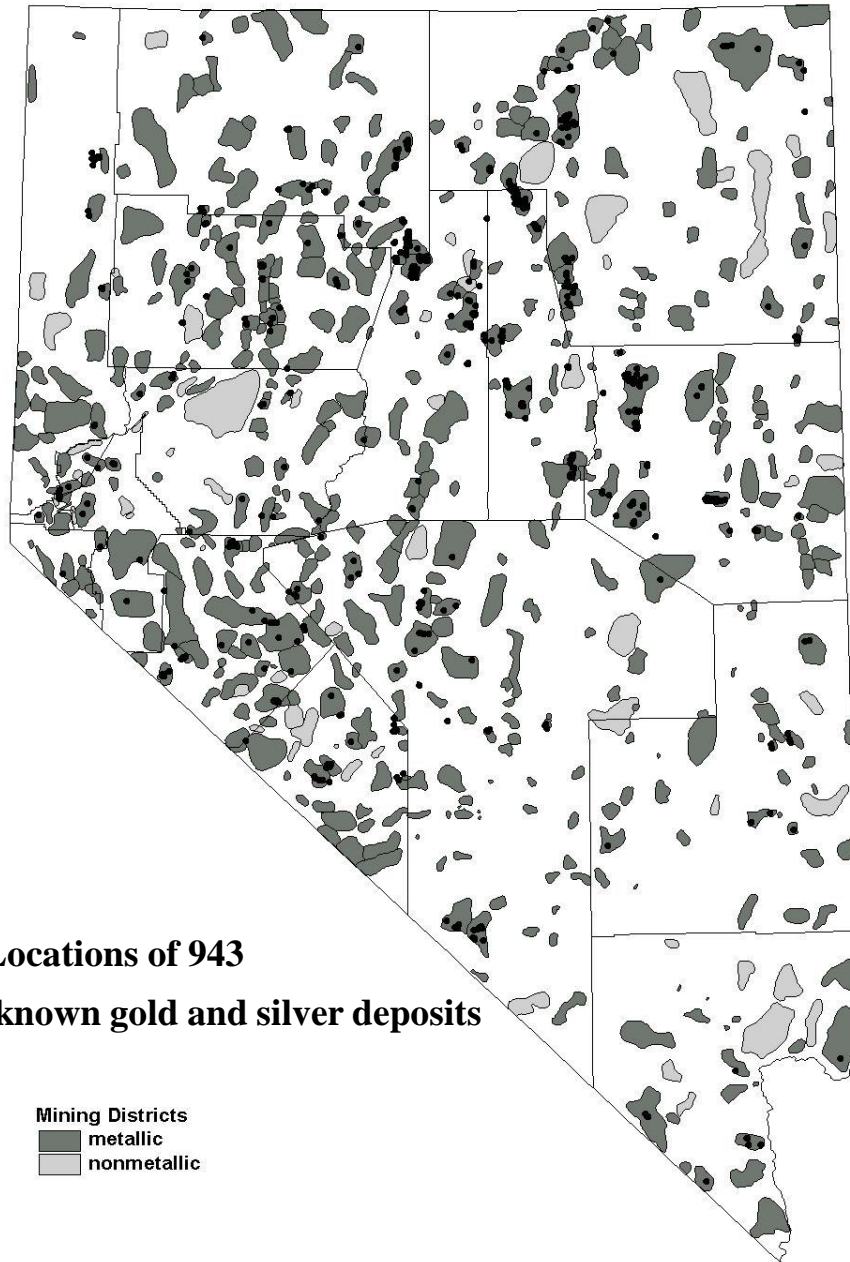
Also off any trend

Round Mountain Mine =
358,614 oz Au in 2010;
with year-end reserves and
resources of 4.8 Moz Au

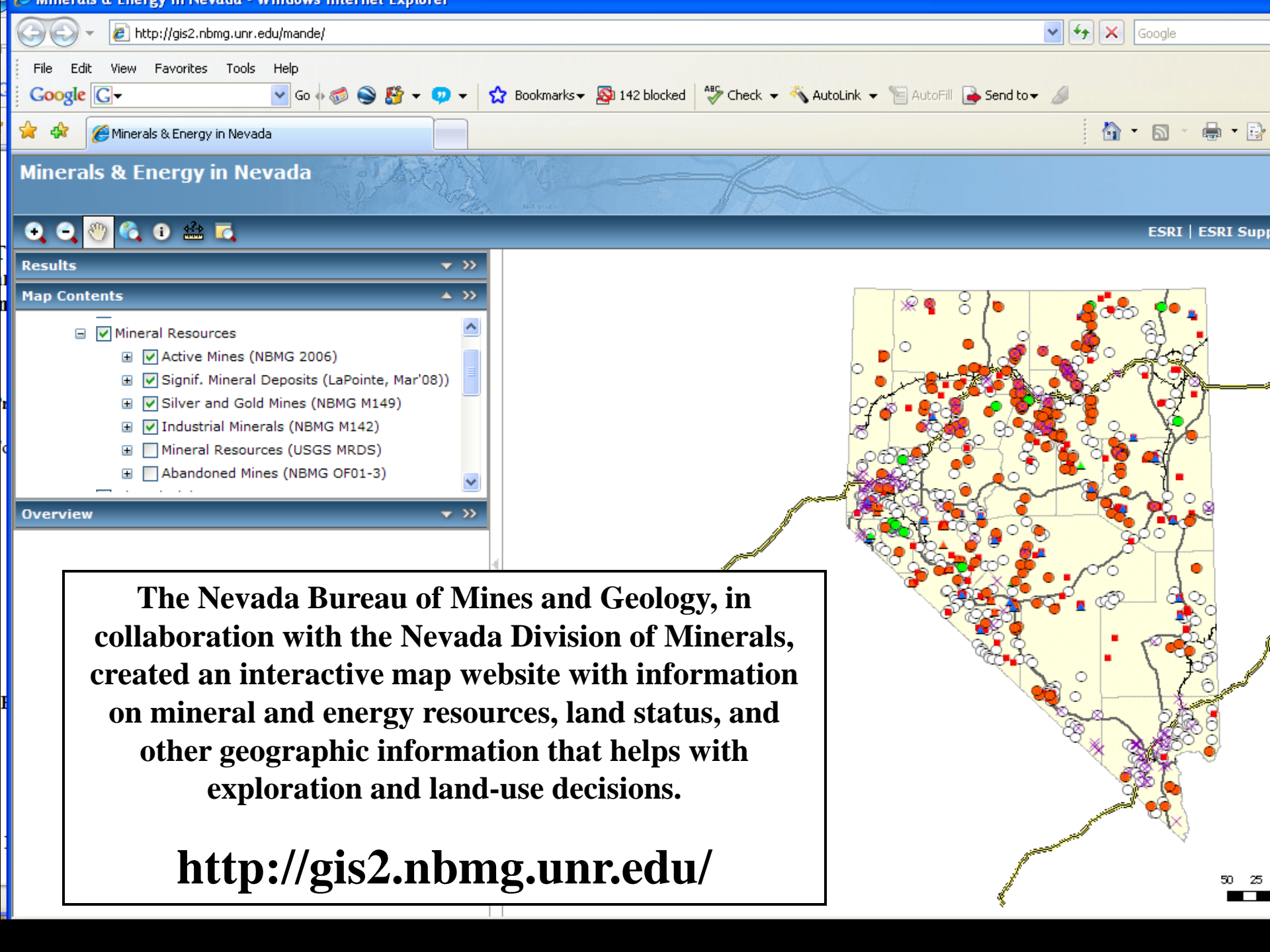
X Metals (mostly Au, Cu, Ag)



Mining Districts plus Gold and Silver Deposits

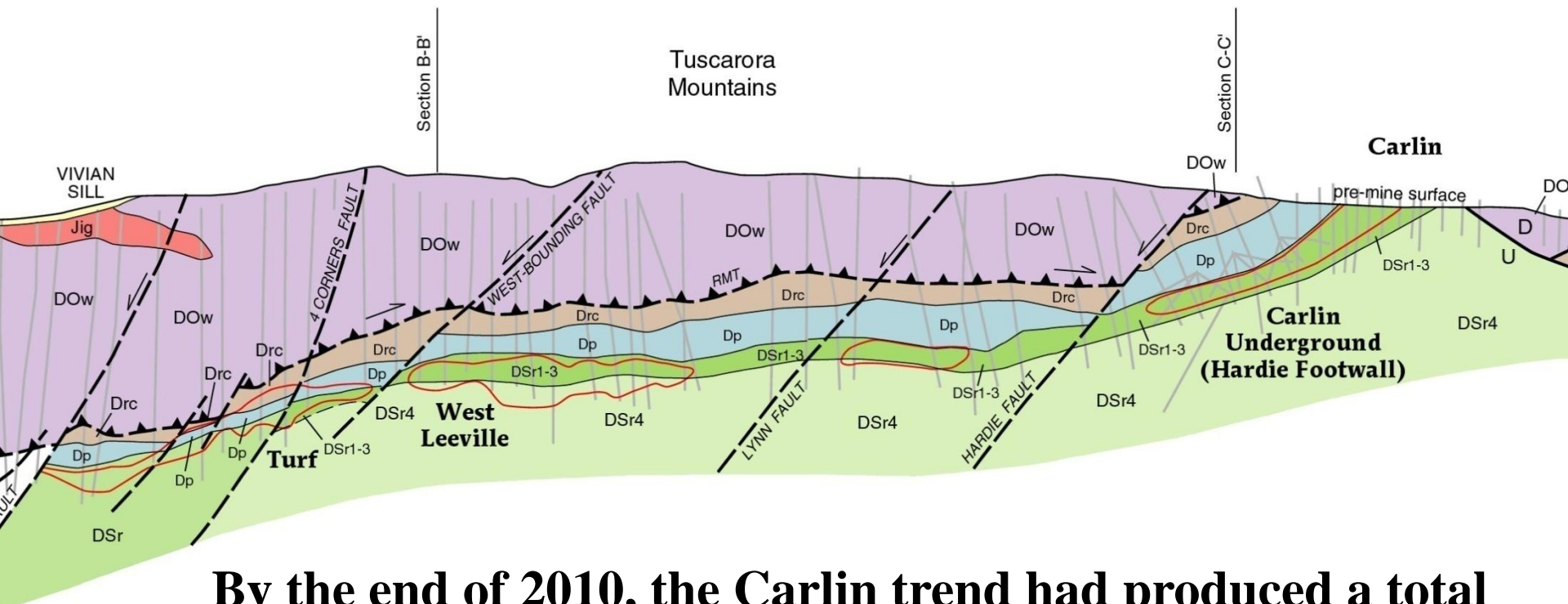


The Nevada Bureau of Mines and Geology updated its “Gold and Silver Resources in Nevada” map in 2006 (Map 149, by Dave Davis, Joe Tingley, and John Muntean) with 943 deposits, in a database as well.



The Nevada Bureau of Mines and Geology, in collaboration with the Nevada Division of Minerals, created an interactive map website with information on mineral and energy resources, land status, and other geographic information that helps with exploration and land-use decisions.

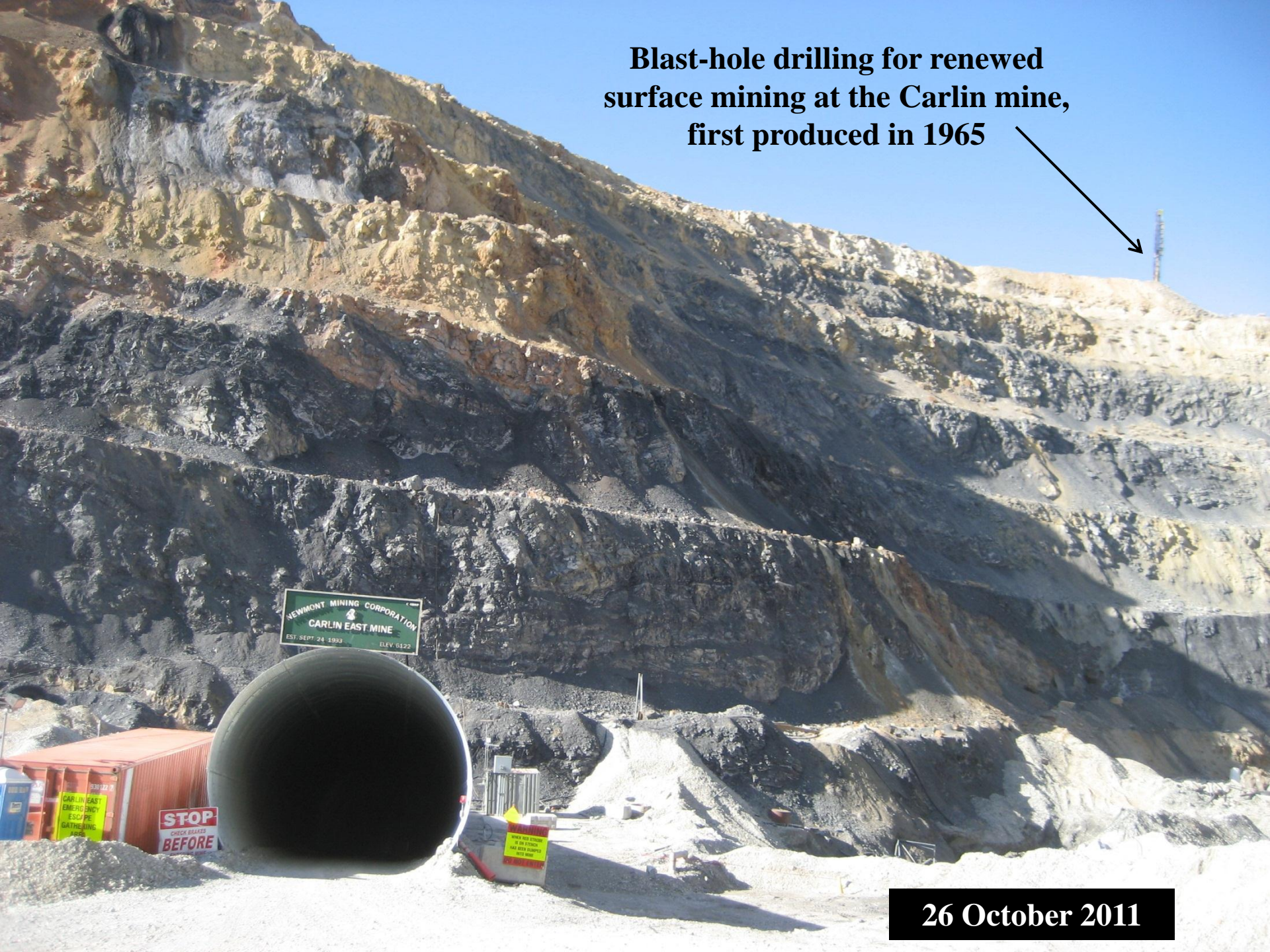
<http://gis2.nbmng.unr.edu/>



By the end of 2010, the Carlin trend had produced a total of 76.3 million ounces of gold (2,373 tonnes). If production levels hold, the trend will produce a cumulative amount of 100 million ounces by 2021.

Section by Steve Moore & others, Newmont, NBMG Bulletin 111 - *Gold Deposits of the Carlin Trend*, edited by Tommy Thompson, Lew Teal, and Dick Meeuwig (204 pages, with detailed geologic maps and sections – \$35 from www.nbm.unr.edu)

**Blast-hole drilling for renewed
surface mining at the Carlin mine,
first produced in 1965**



26 October 2011



**Pete Bajo portal to access Leeville,
27 October 2011**

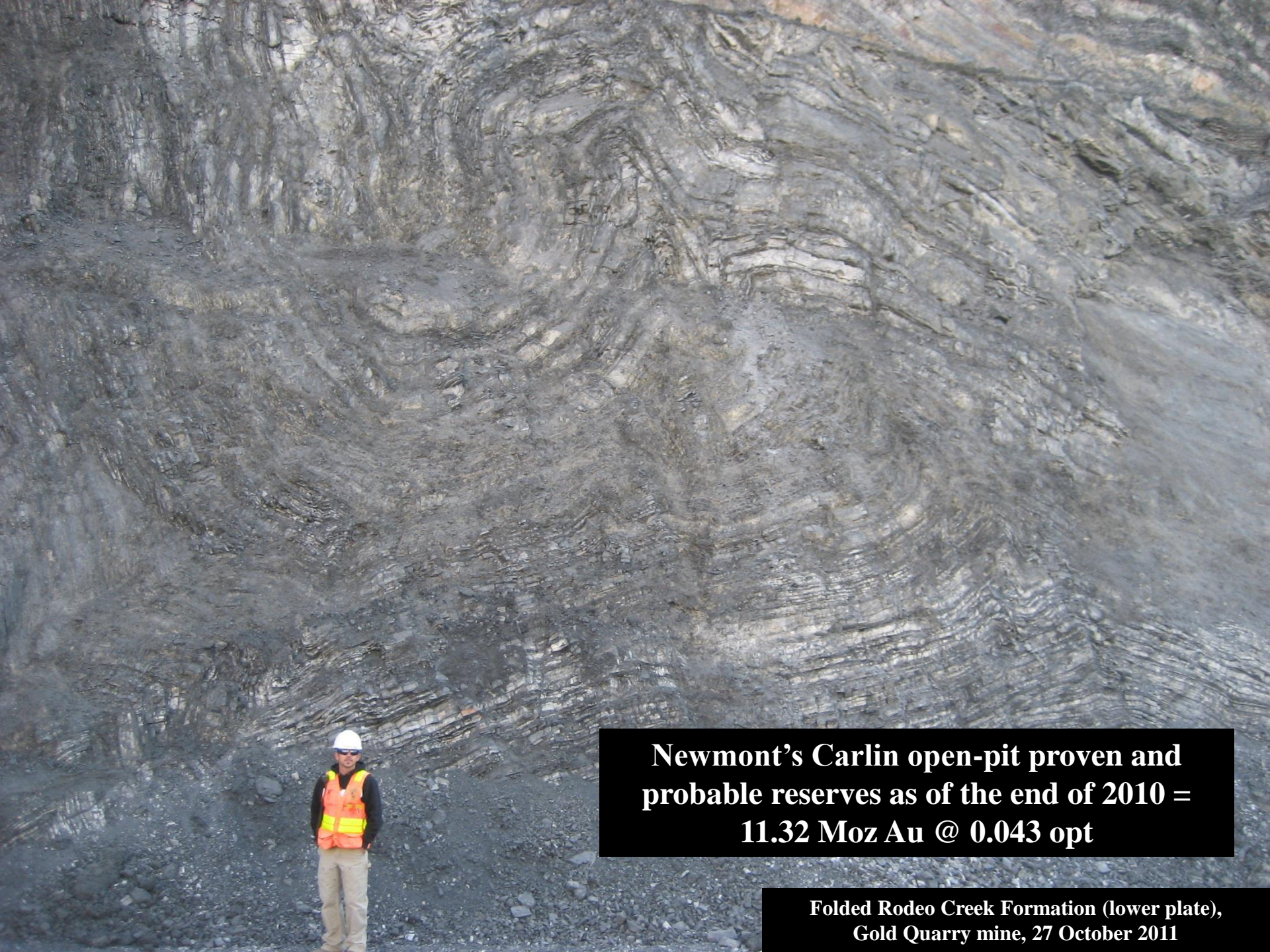
**Newmont's Carlin underground proven and
probable reserves as of the end of 2010 =
4.48 Moz Au @ 0.307 opt**



Leeville shotcrete & shaft, 26-27 October 2011



Gold Quarry mine - expanding, 27 October 2011



**Newmont's Carlin open-pit proven and
probable reserves as of the end of 2010 =
11.32 Moz Au @ 0.043 opt**

**Folded Rodeo Creek Formation (lower plate),
Gold Quarry mine, 27 October 2011**

**Newmont's total proven and probable reserves on the Carlin trend
at the end of 2010 = 15.8 Moz Au**



Tertiary dikes , Lantern pit, 27 October 2011



**The Betze-Post mine is the most productive pit: 882,200 oz of gold in 2010;
total production now ~29 Moz.**

**The Meikle mine is one of the most productive underground mines: 281,308 ounces of gold
in 2010; total production (1996-2010) = 8.2 Moz of gold;
the Leeville mine may have exceeded Meikle's production in 2009 and 2010.**

**Barrick's total mineral reserves and resources on the Carlin trend,
as of the end of 2010 = 16.0 Moz of gold.**

Cortez Hills pit, 2010



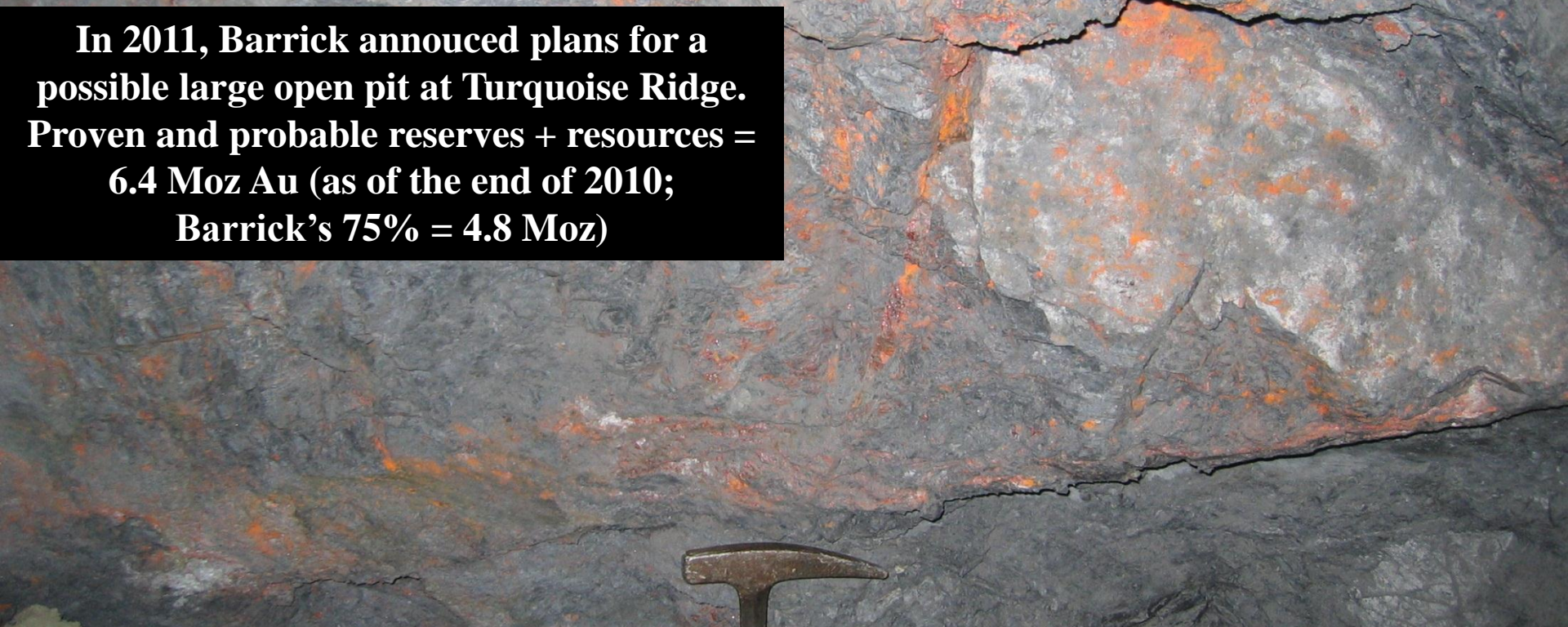
The Cortez Hills and Pediment deposits, near the earlier Cortez operations at the foot of Mount Tenabo, discovered in 2004, with intercepts as good as 410 feet @ 1.035 opt.

Production from the Cortez Hills underground mine increased to 347,998 oz of Au in 2010, up from 125,057 oz of Au in 2009 and 6,804 oz of Au in 2008. New discoveries nearby at Red Hill and Goldrush (planned 264,000 feet of drilling in 2011)

Cortez Hills + Pipeline reserves & resources (2010) = 14.5 Moz of gold

www.barrick.com

In 2011, Barrick announced plans for a possible large open pit at Turquoise Ridge. Proven and probable reserves + resources = 6.4 Moz Au (as of the end of 2010; Barrick's 75% = 4.8 Moz)



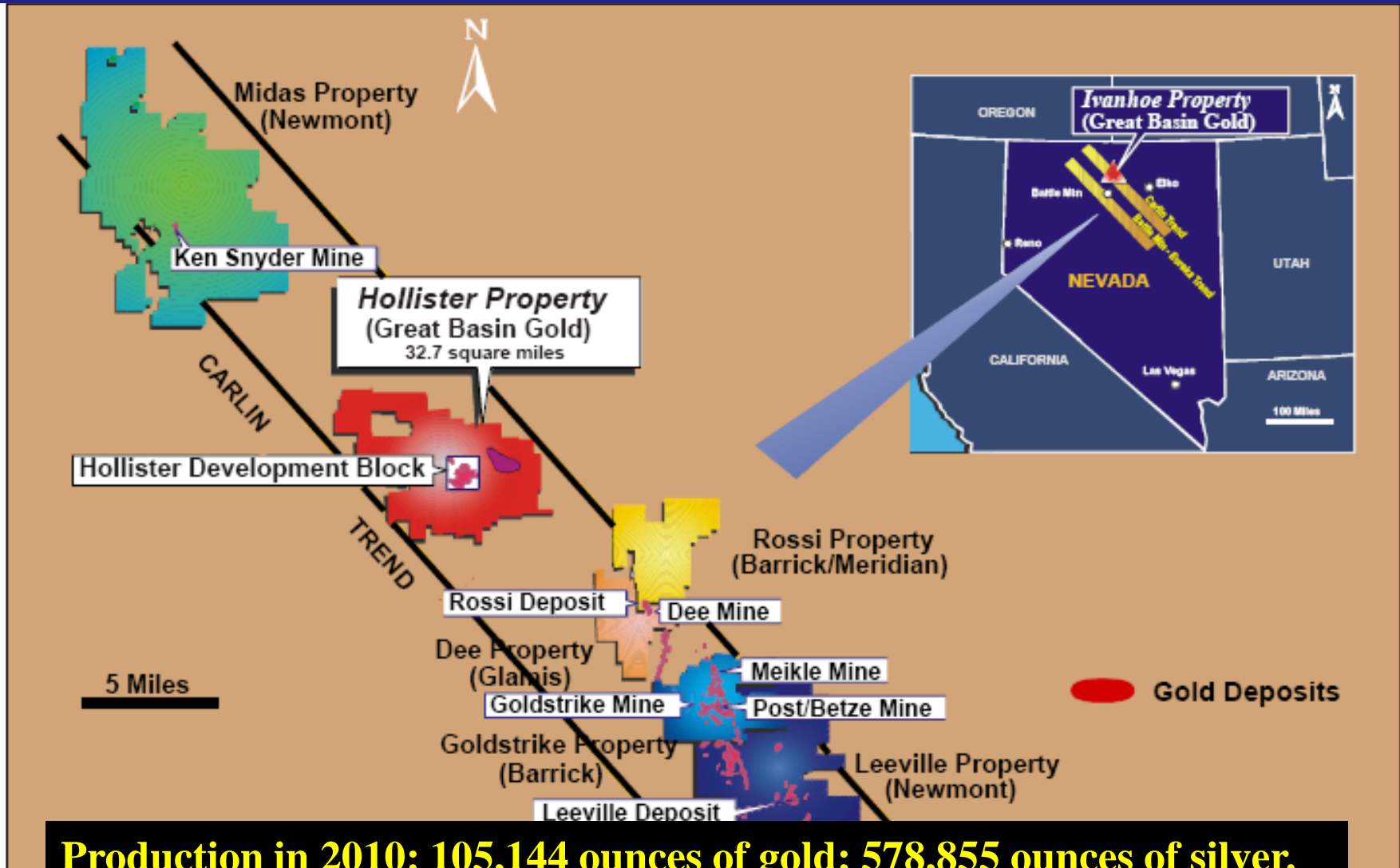
HOLLISTER - Elko Co.

Great Basin Gold - www.greatbasingold.com

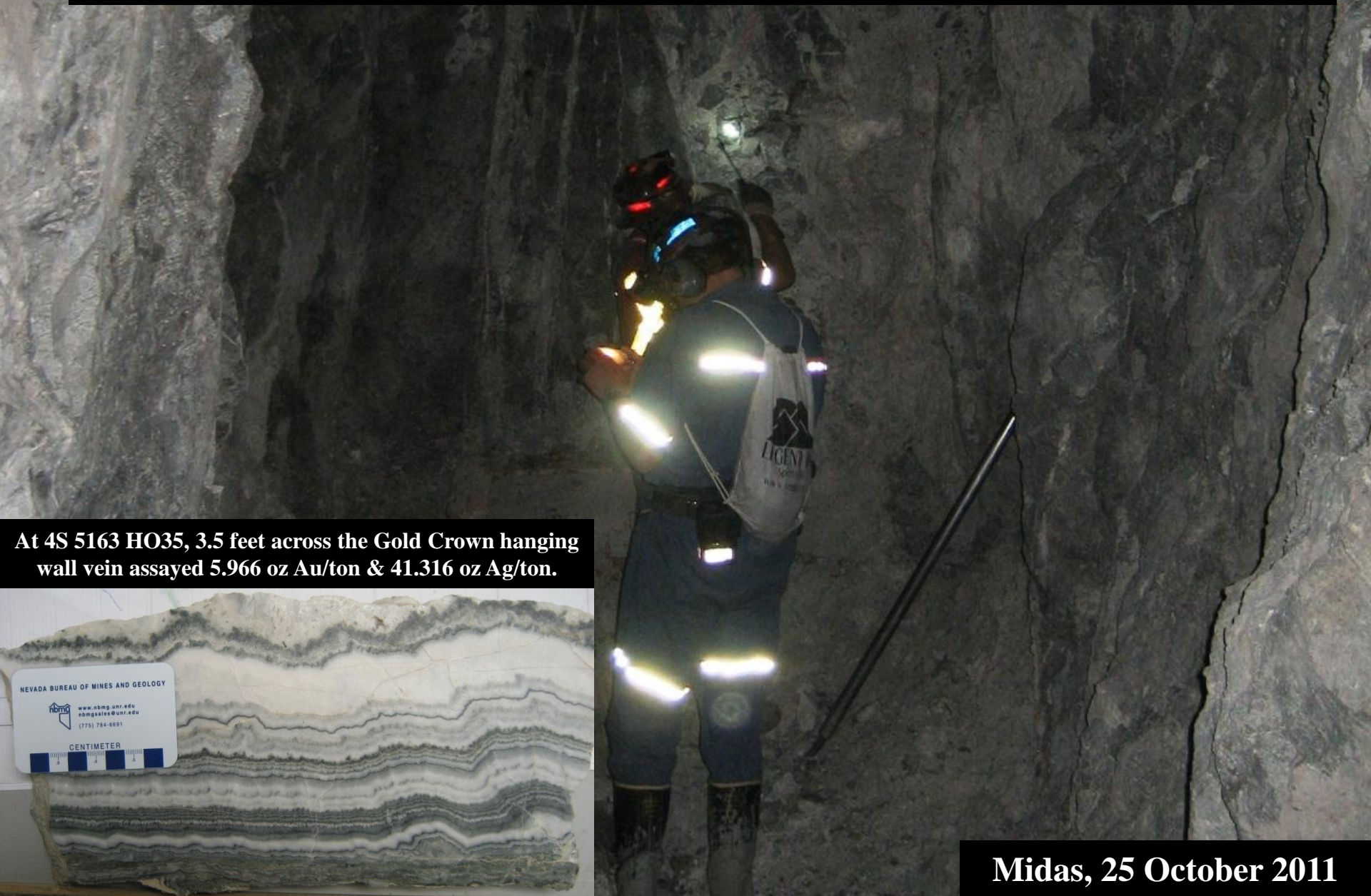
Low-sulfidation epithermal vein, not a Carlin-type deposit

January 2011 reserves: 832,100 oz Au @ 0.793 opt; 4,986,000 oz Ag @ 4.8 opt

September 2010 resources: 1.46 Moz Au @ 1.305 opt; 11.6 Moz Ag @ 10.3 opt



Midas (Ken Snyder) – also not a Carlin-type deposit
127,196 oz Au in 2010; total mine production = 2 Moz Au, 24 Moz Ag
Proven and probable reserves as of end of 2010 = 190,000 oz Au



At 4S 5163 HO35, 3.5 feet across the Gold Crown hanging wall vein assayed 5.966 oz Au/ton & 41.316 oz Ag/ton.

Midas, 25 October 2011

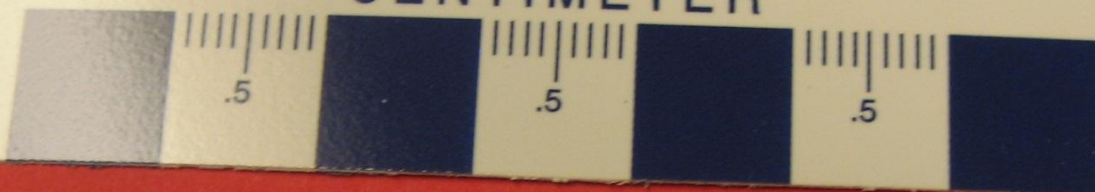
NEVADA BUREAU OF MINES AND GEOLOGY



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(775) 784-6691

CENTIMETER



electrum (Au,Ag) and
naumannite (Ag_2Se),
Midas

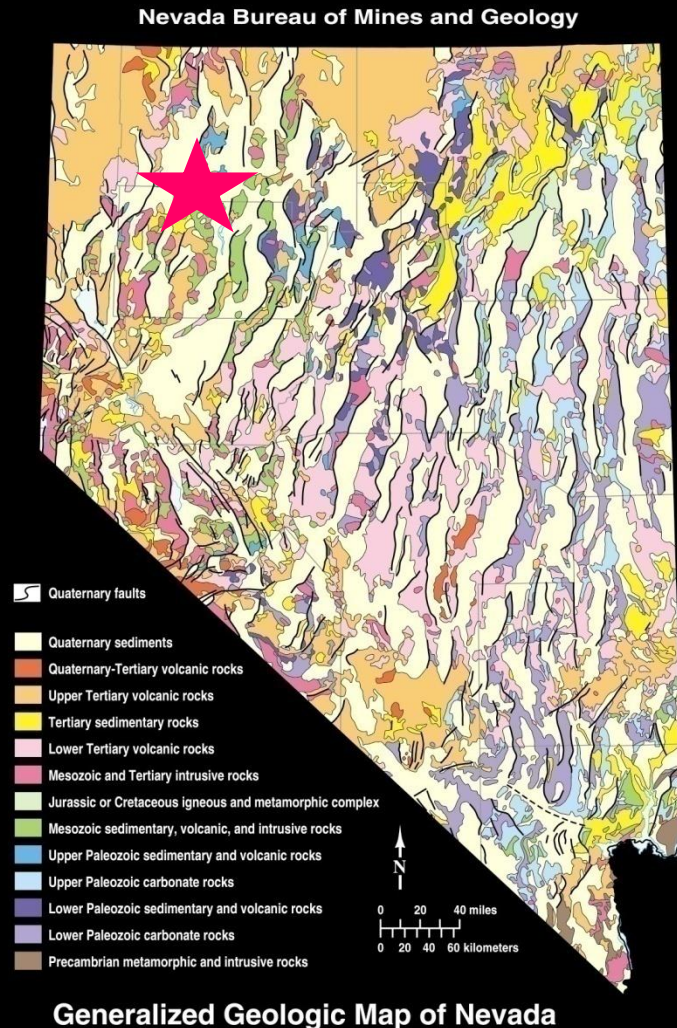
HYCROFT - Humboldt Co.

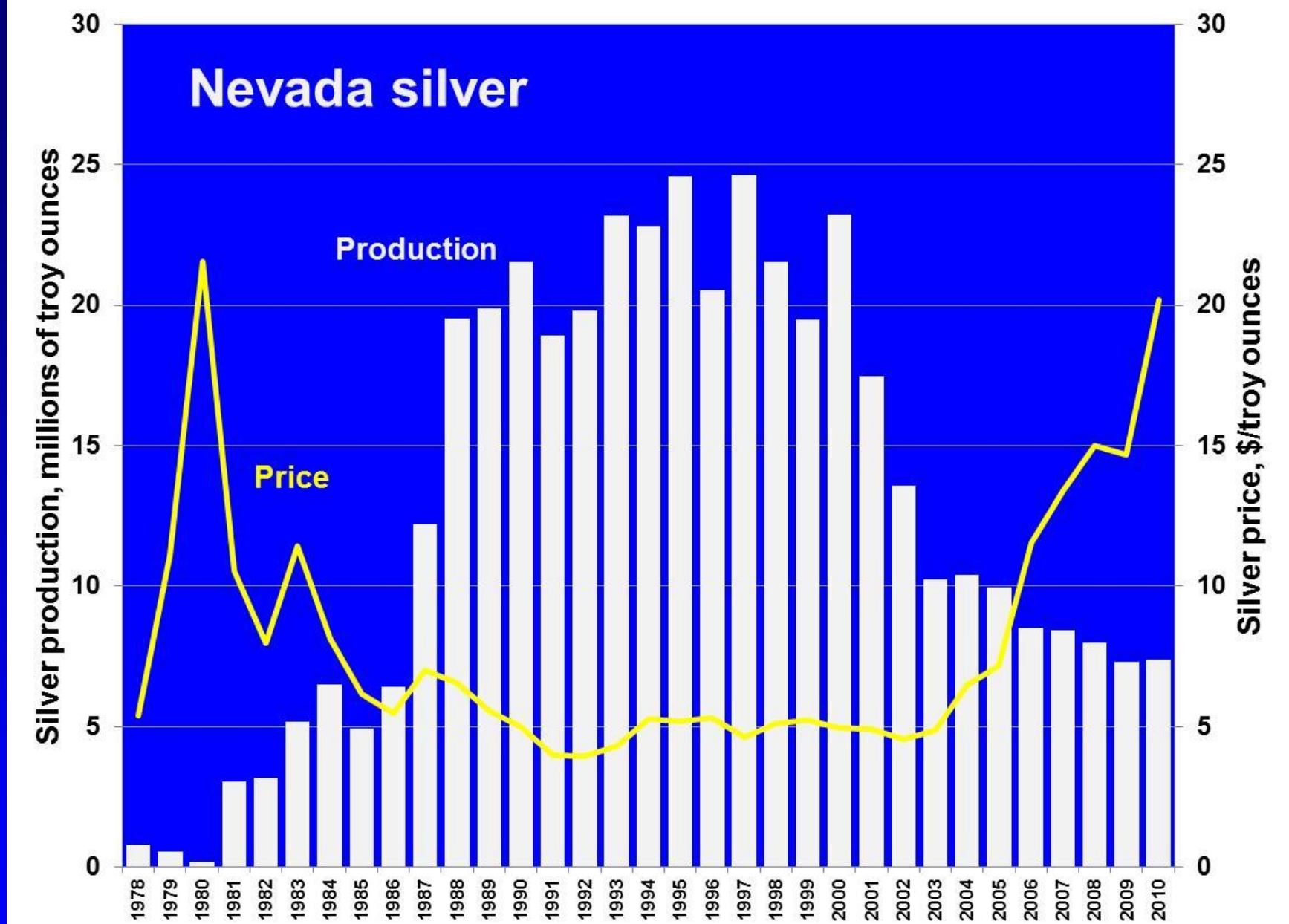
Allied Nevada Gold Corp – www.alliednevada.com

102,483 oz Au in 2010, up from 53,189 oz Au in 2009



**Proven and probable reserves (2011 Q3 report):
854.0 Mt @ 0.012 opt Au, 0.46 opt Ag
Total: 10.2 Moz Au, 17.0 Moz Ag**





The Coeur Rochester mine in Pershing County produced 2.0 Moz of silver in 2010 at a 210:1 silver:gold ratio .

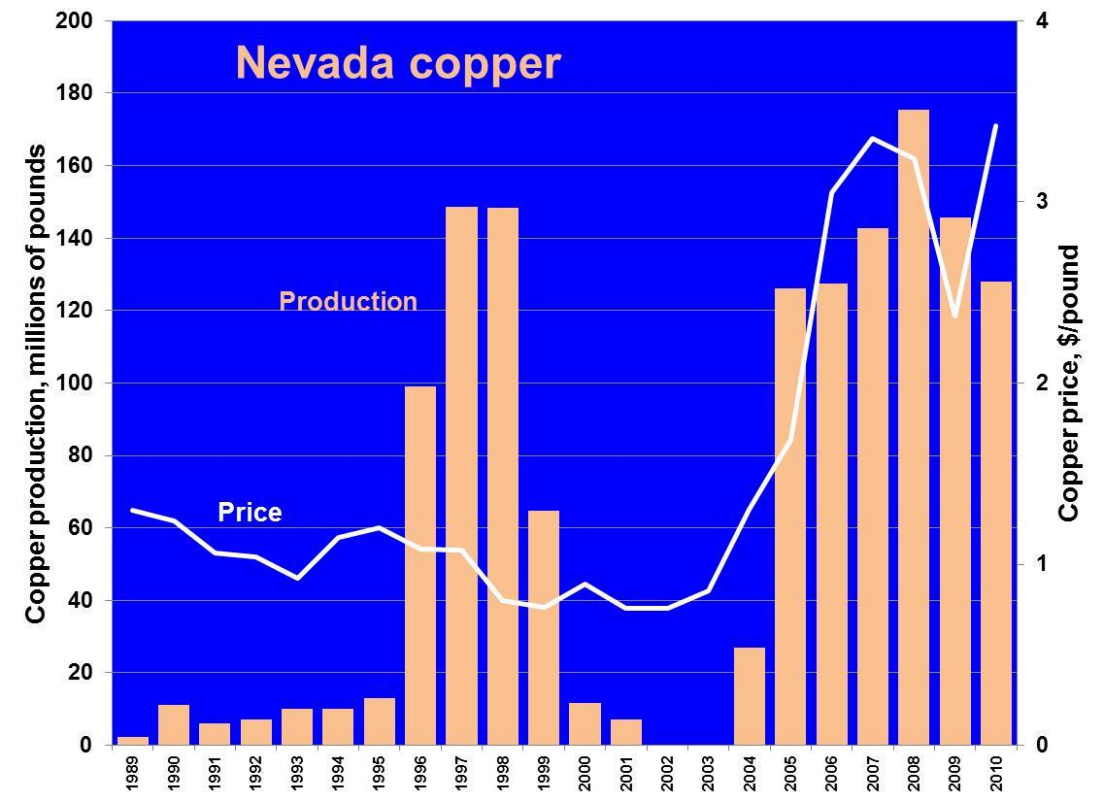


Coeur's Rochester mine has produced more than 125 Moz Ag and 1.2 Moz Au since production began in 1986.

**2010 year-end proven and probable reserves:
27.6 Moz Ag, 247,400 oz Au
Measured and indicated resources:
94.4 Moz Ag, 708,800 oz Au**

**Historical production data:
grades in 2007: 0.65 oz Ag/ton;
0.006 oz Au/ton.**

“This new production (from a leach pad to be completed in 2011) is expected to increase total average annual production to more than 2.4 million ounces of silver and 35,000 ounces of gold annually for at least the next eight years.”



**Nevada produced
128 million pounds
of Cu in 2010**

**354,000 pounds of
Mo in 2010**

Quadra Mining (www.quadrafnx.com) at Robinson (Ely):
109 million pounds of Cu; 227 thousand pounds of Mo;
73 thousand ounces of Au; 246 thousand ounces of Ag

**Reserves: 121.6 million tonnes @ 0.54% Cu, 0.23 g Au/t
= 1.45 billion pounds of Cu, 870,000 ounces of Au**

Newmont at Phoenix (Battle Mountain) production in 2010:
19 million pounds of Cu;
214 thousand ounces of Au; 921 thousand ounces of Ag

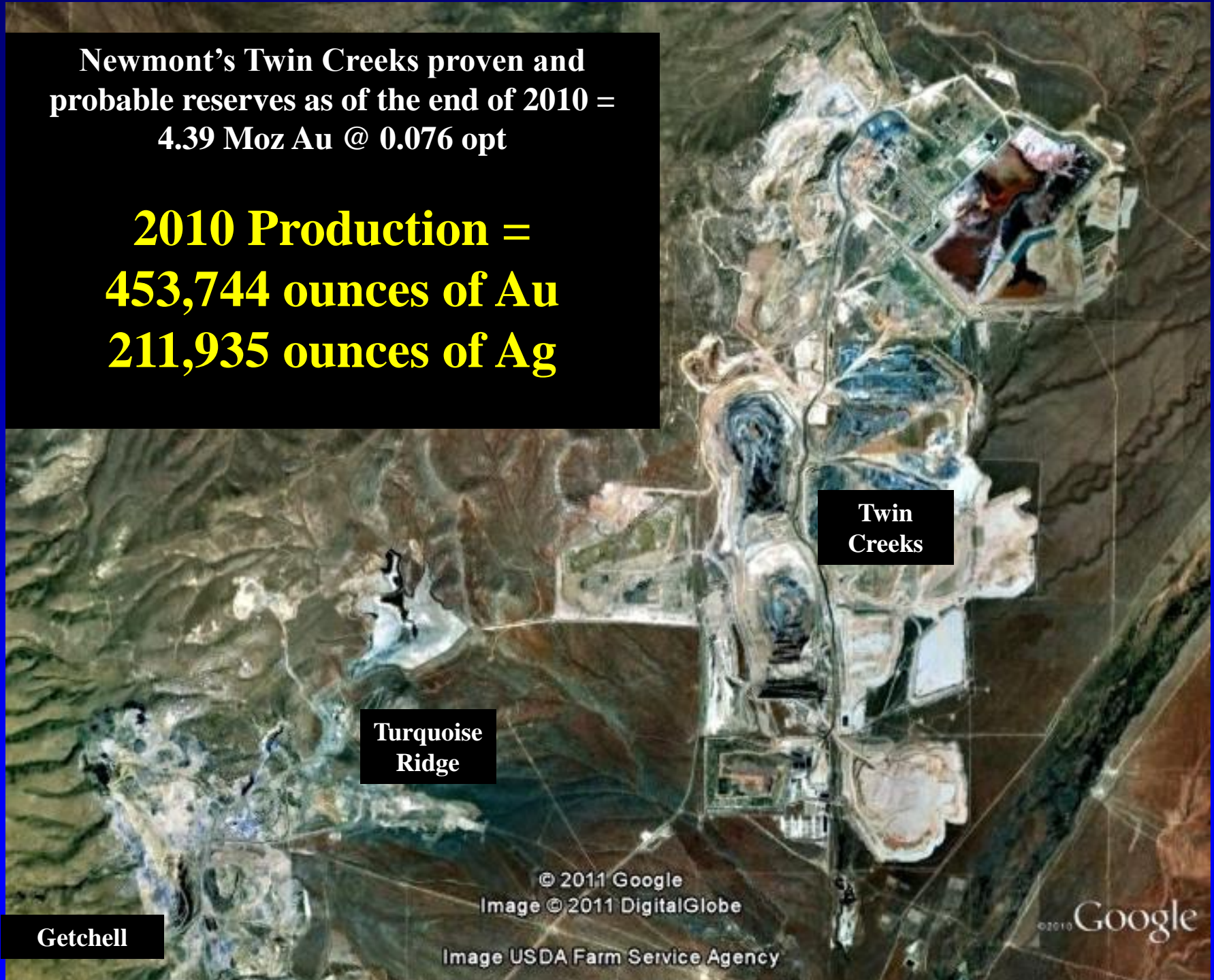


Phoenix, 22 June 2011

**Newmont's Phoenix proven and probable
reserves as of the end of 2010 =
6.0 Moz Au @ 0.018 opt
1.64 billion pounds Cu @ 0.18%**

Newmont's Twin Creeks proven and
probable reserves as of the end of 2010 =
4.39 Moz Au @ 0.076 opt

**2010 Production =
453,744 ounces of Au
211,935 ounces of Ag**



Twin
Creeks

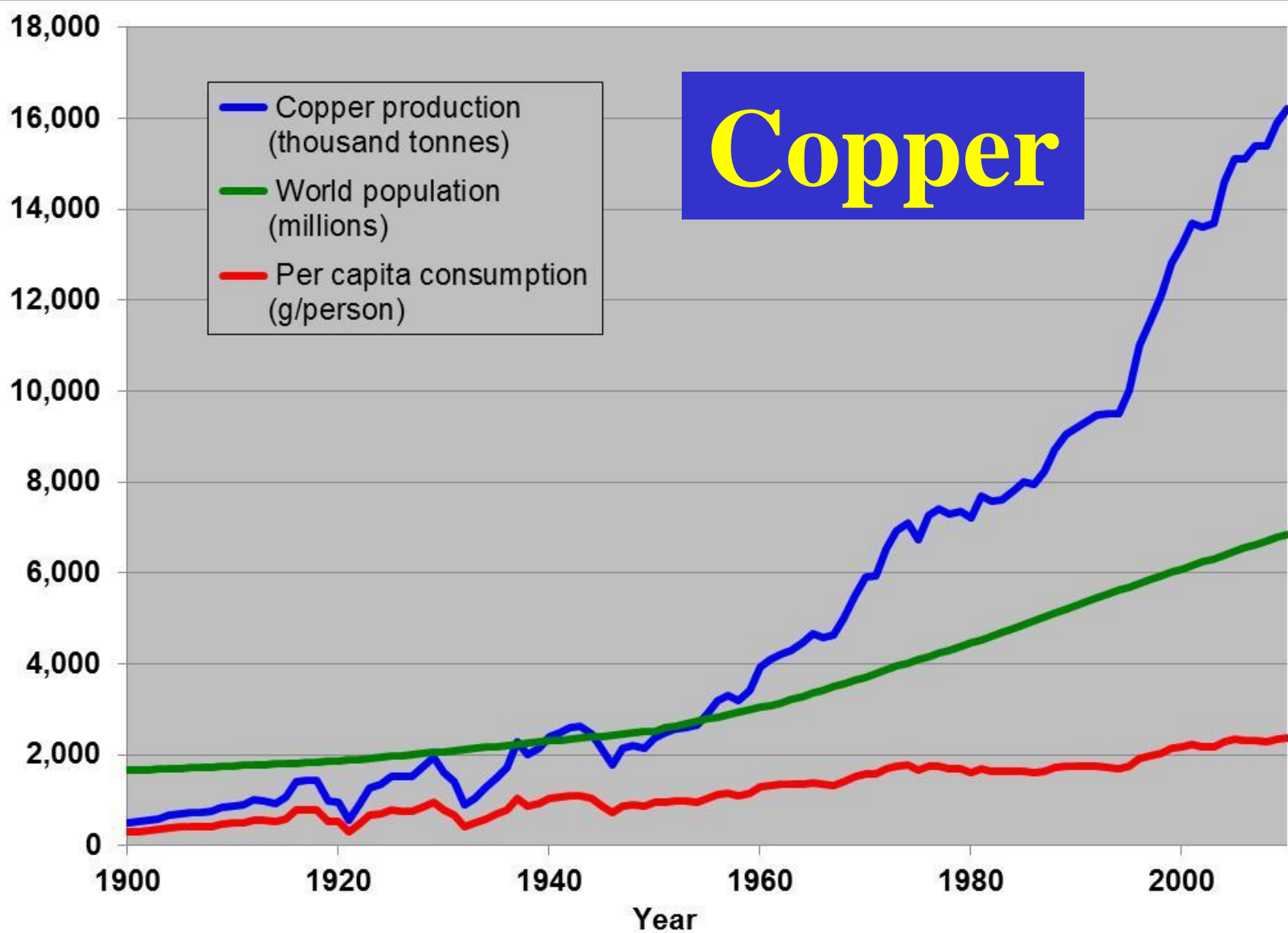
Turquoise
Ridge

Getchell

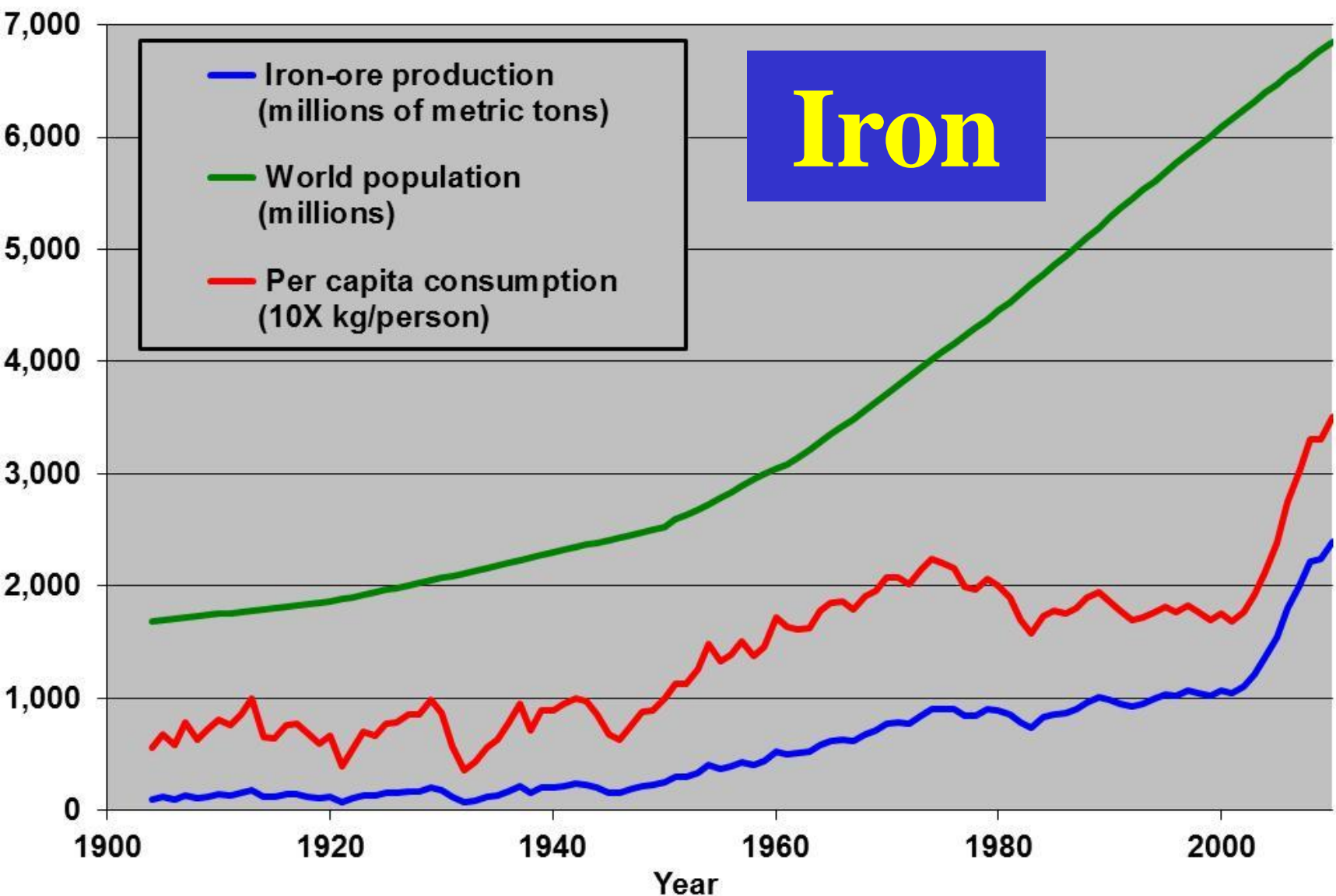
© 2011 Google
Image © 2011 DigitalGlobe

Image USDA Farm Service Agency

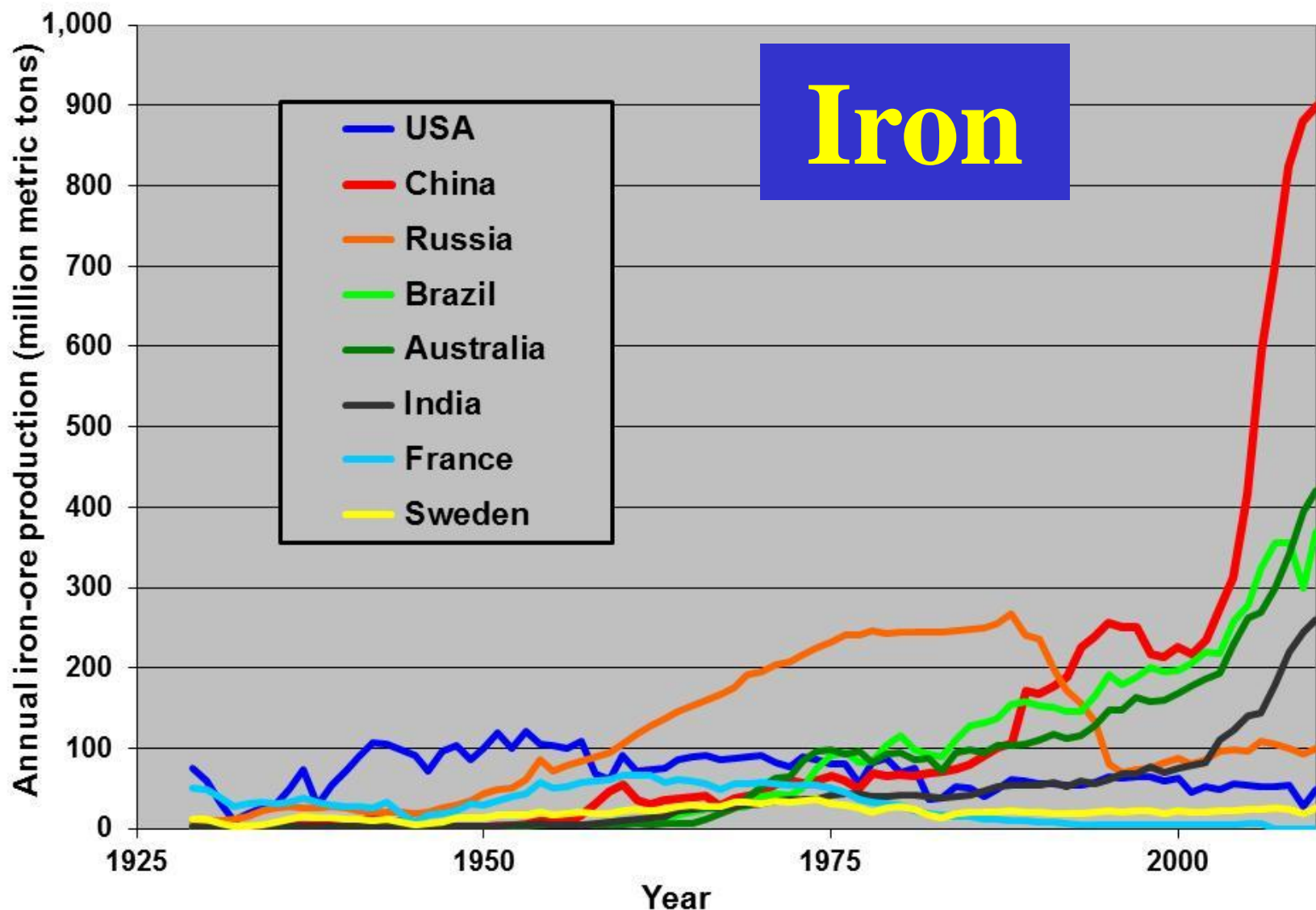
© 2010 Google



**Demand is high for nearly every mineral resource.
Copper production in 2010 reached another all-time annual high.**

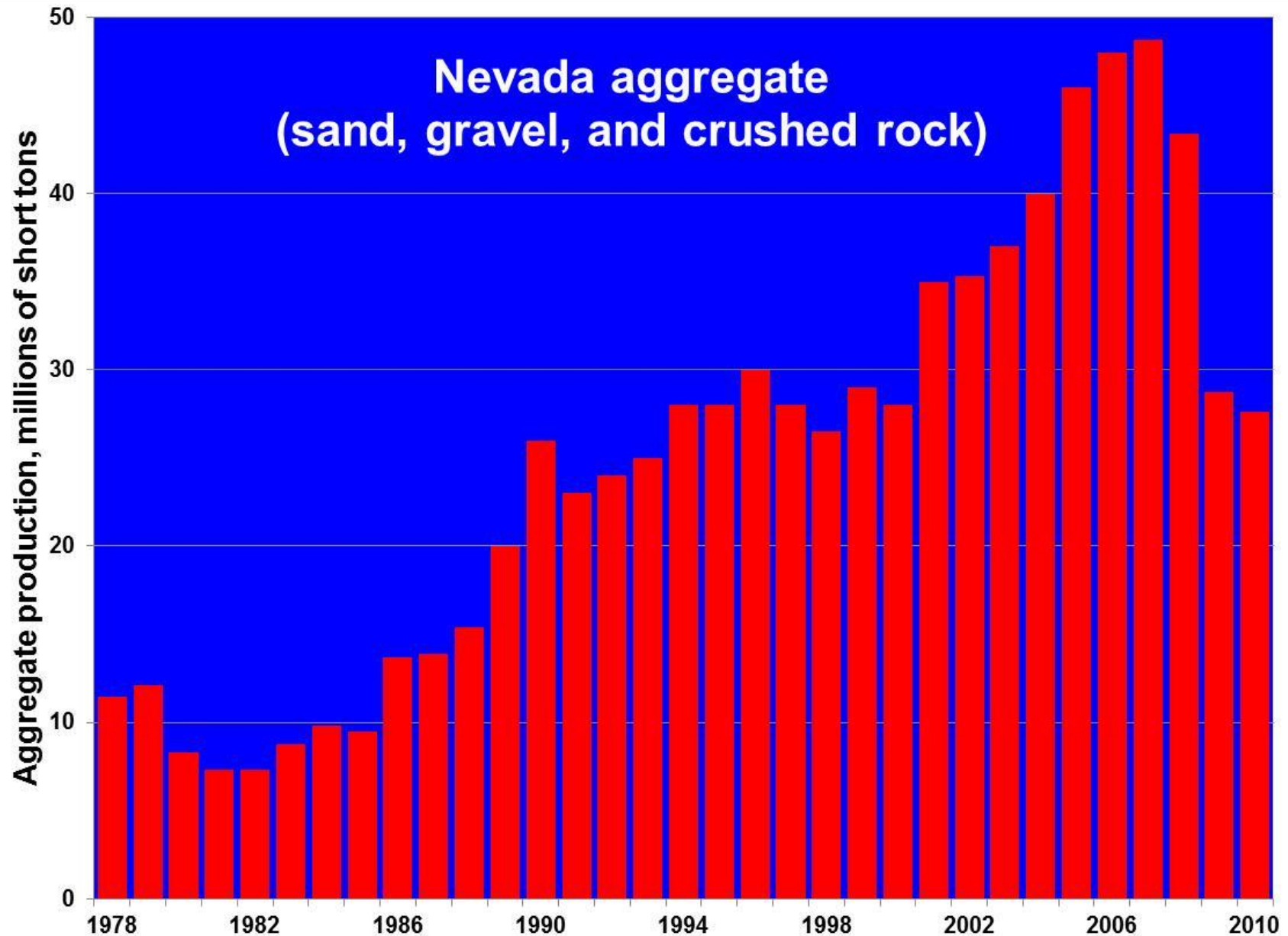


**Demand is high for nearly every mineral resource.
Iron production in 2010 reached another all-time annual high.**

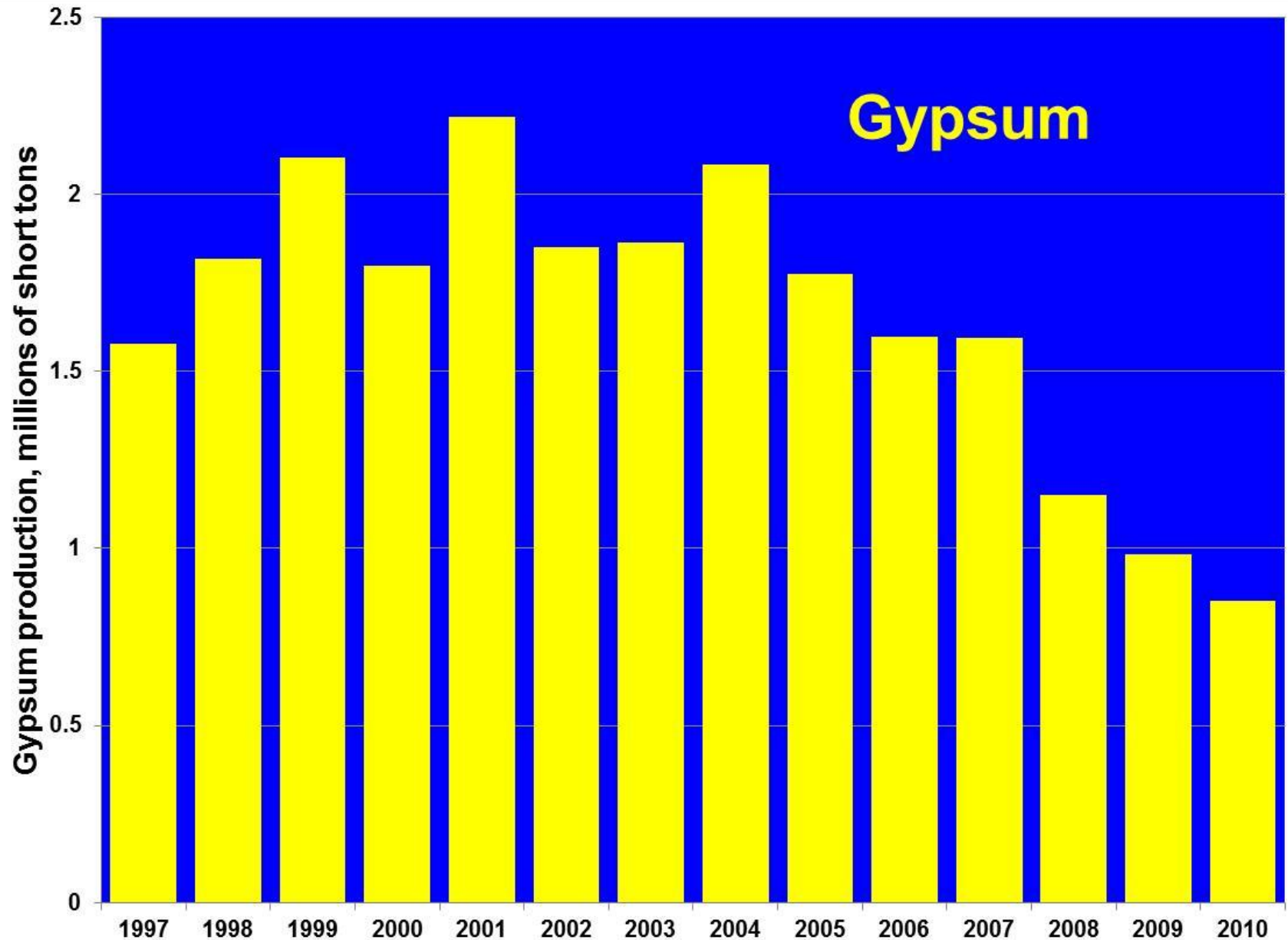


There was a great recession in the U.S., but it has not been felt significantly in China, Australia, Brazil, or India (by this measure – iron ore).

The economy continues to suffer for the construction industry, particularly hard in Nevada and California.

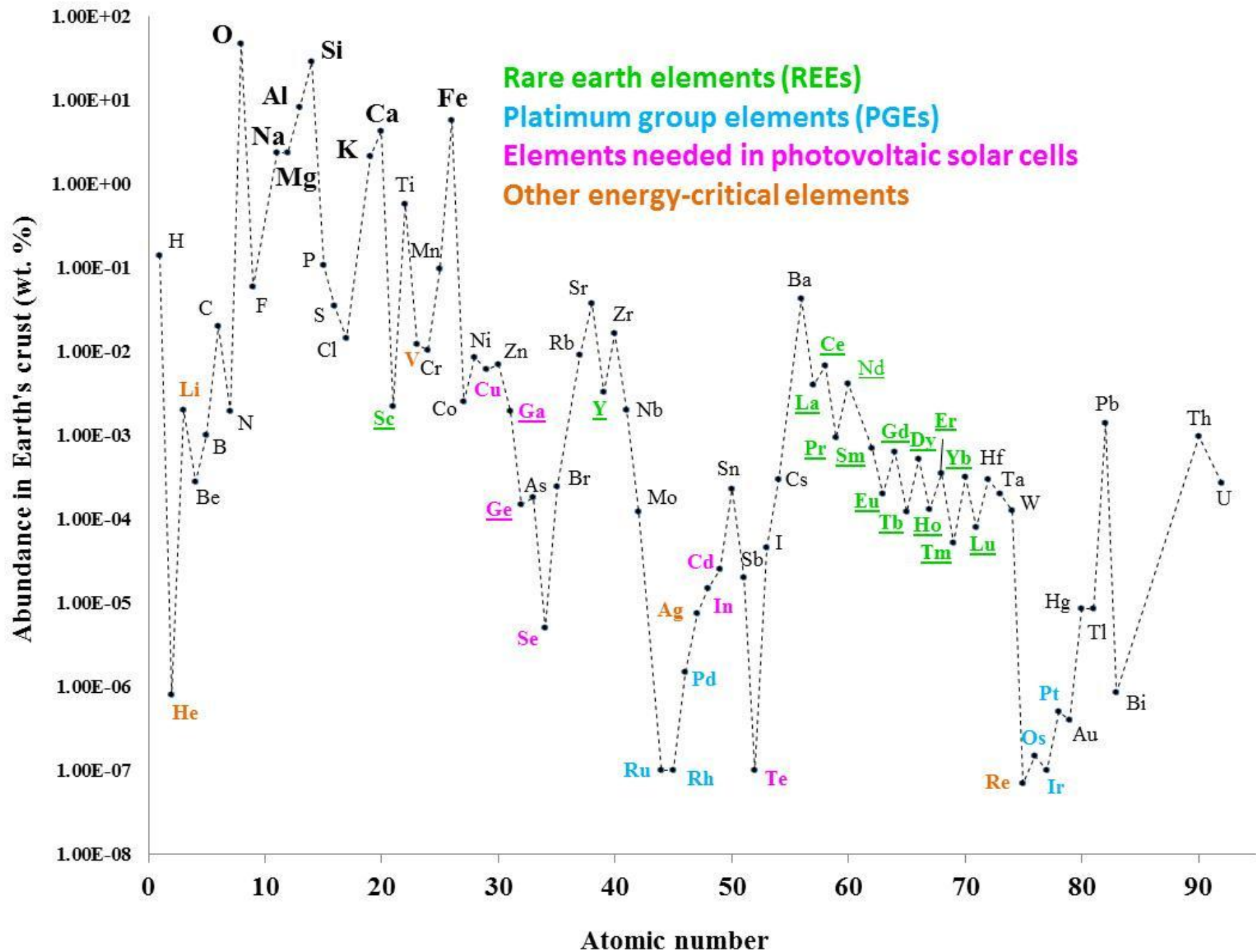


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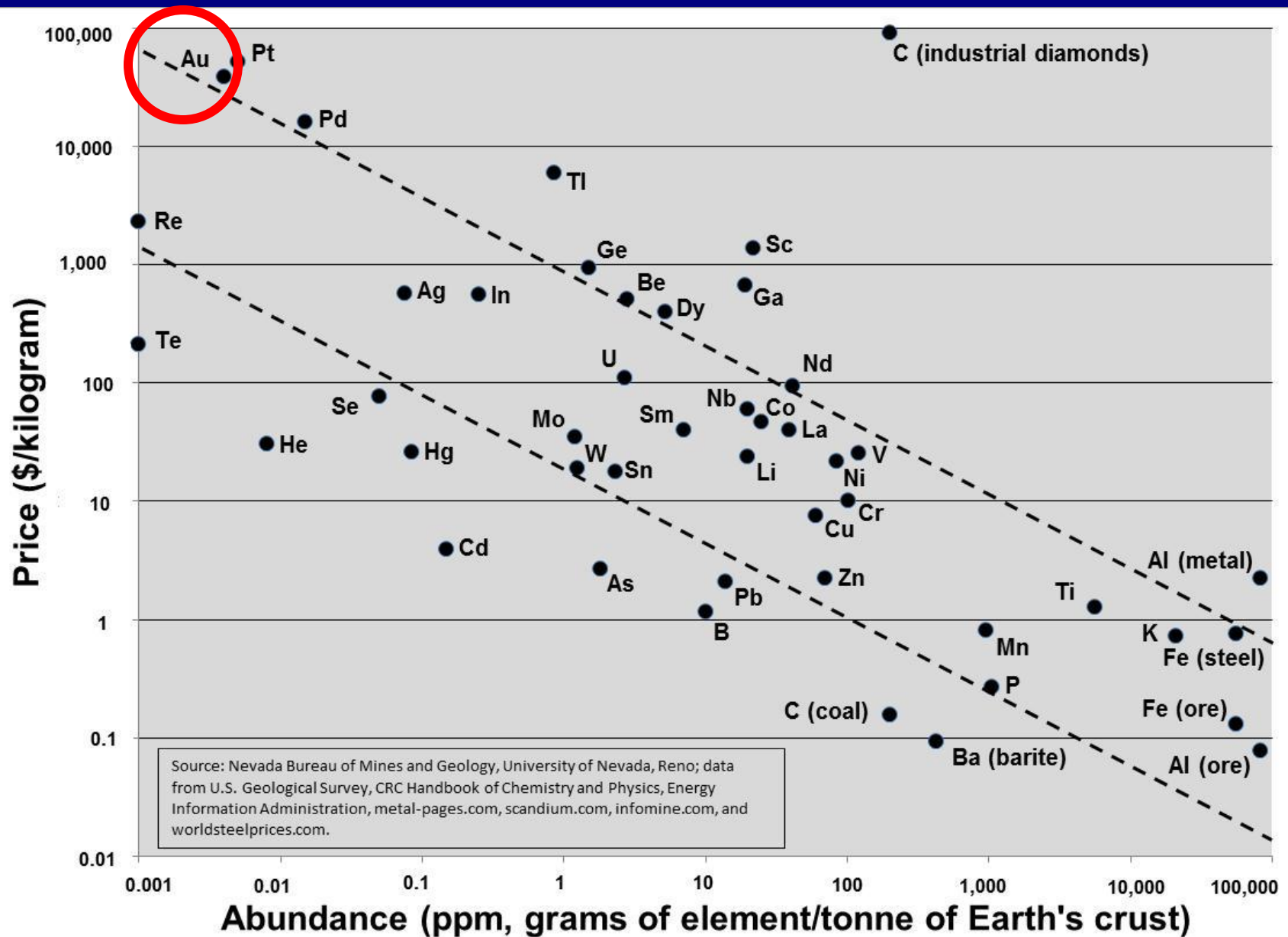




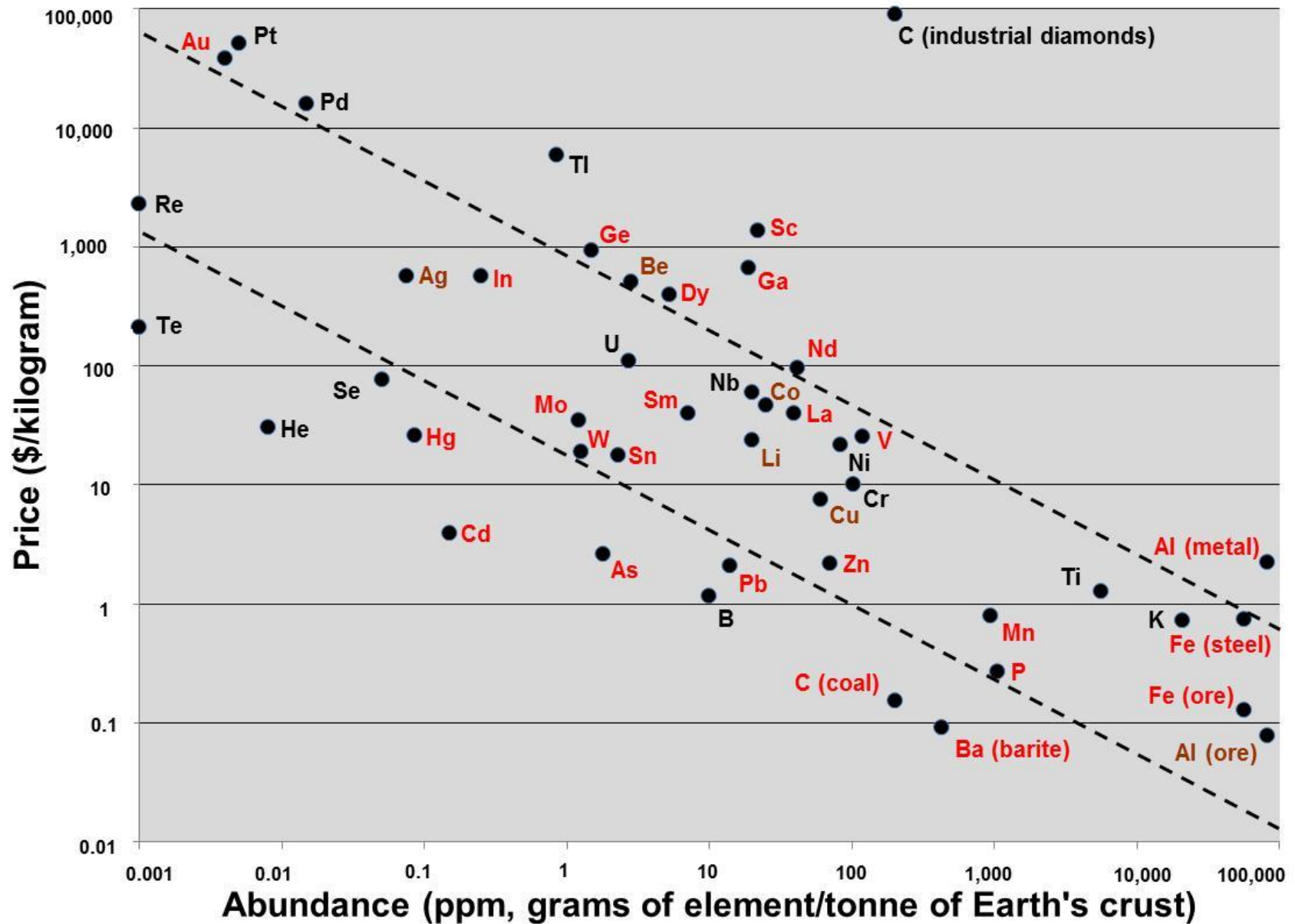
"Forget gold. Strategic metals are where it's at."



Exploration commonly focuses on the relatively high-price commodities, including gold.



**Among the 46 commodities shown, China is the #1 producer of 25
and among the top three for 31**

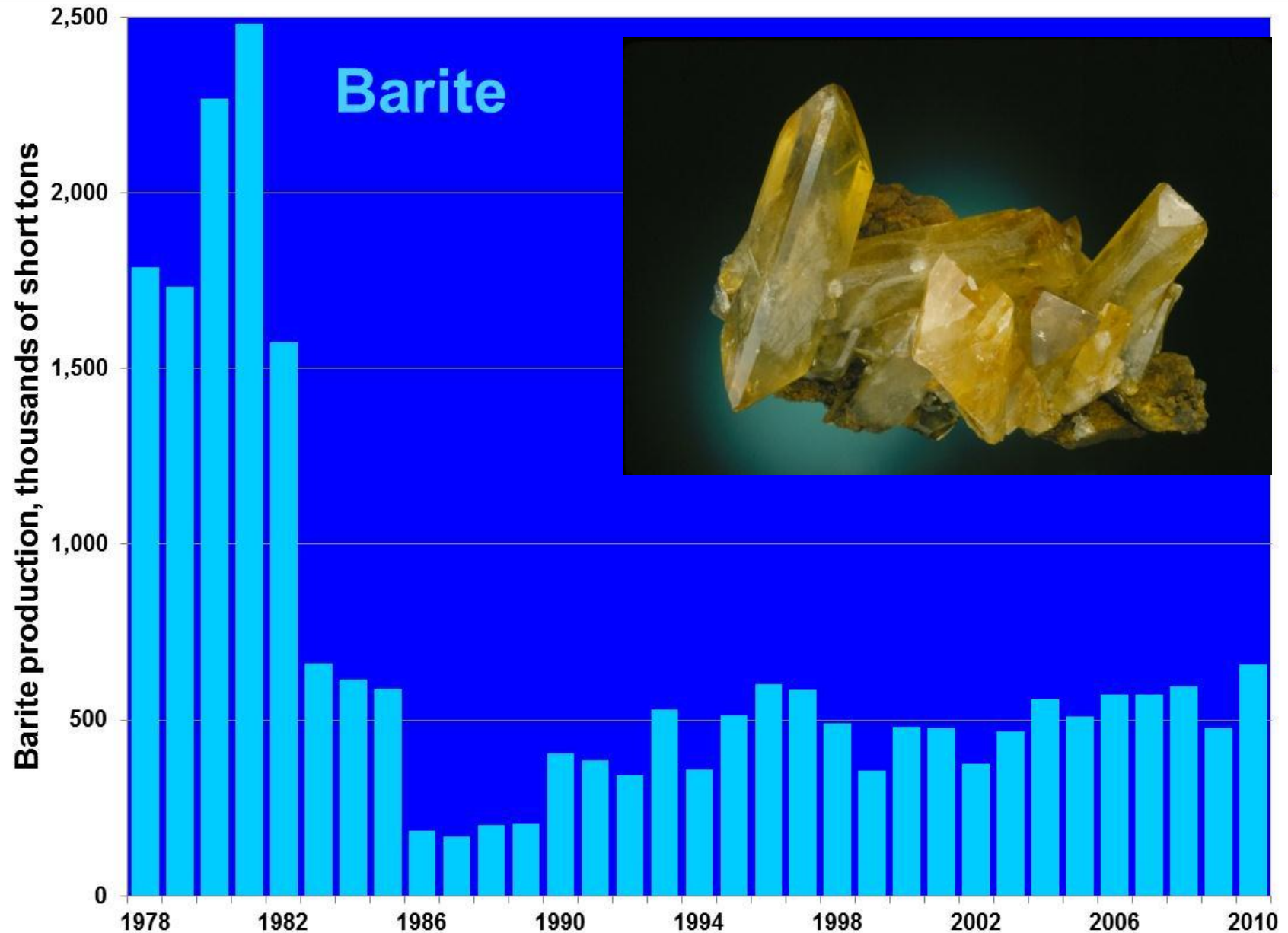


Mineral Ridge, Silver Peak Range, west of Clayton Valley



Lithium-brine evaporation pond; back in operation after a shut-down of pumping in 2008 – currently the nation's only Li producer

**Nevada is the leading producer of barite in the U.S.;
2010 saw some improvement in production.**



Nevada petroleum

Petroleum production, thousands of barrels

Production

Price

Petroleum price, \$/barrel



0

500

1,000

1,500

2,000

2,500

3,000

3,500

4,000

4,500

0

10

20

30

40

50

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2010

Nevada geothermal energy

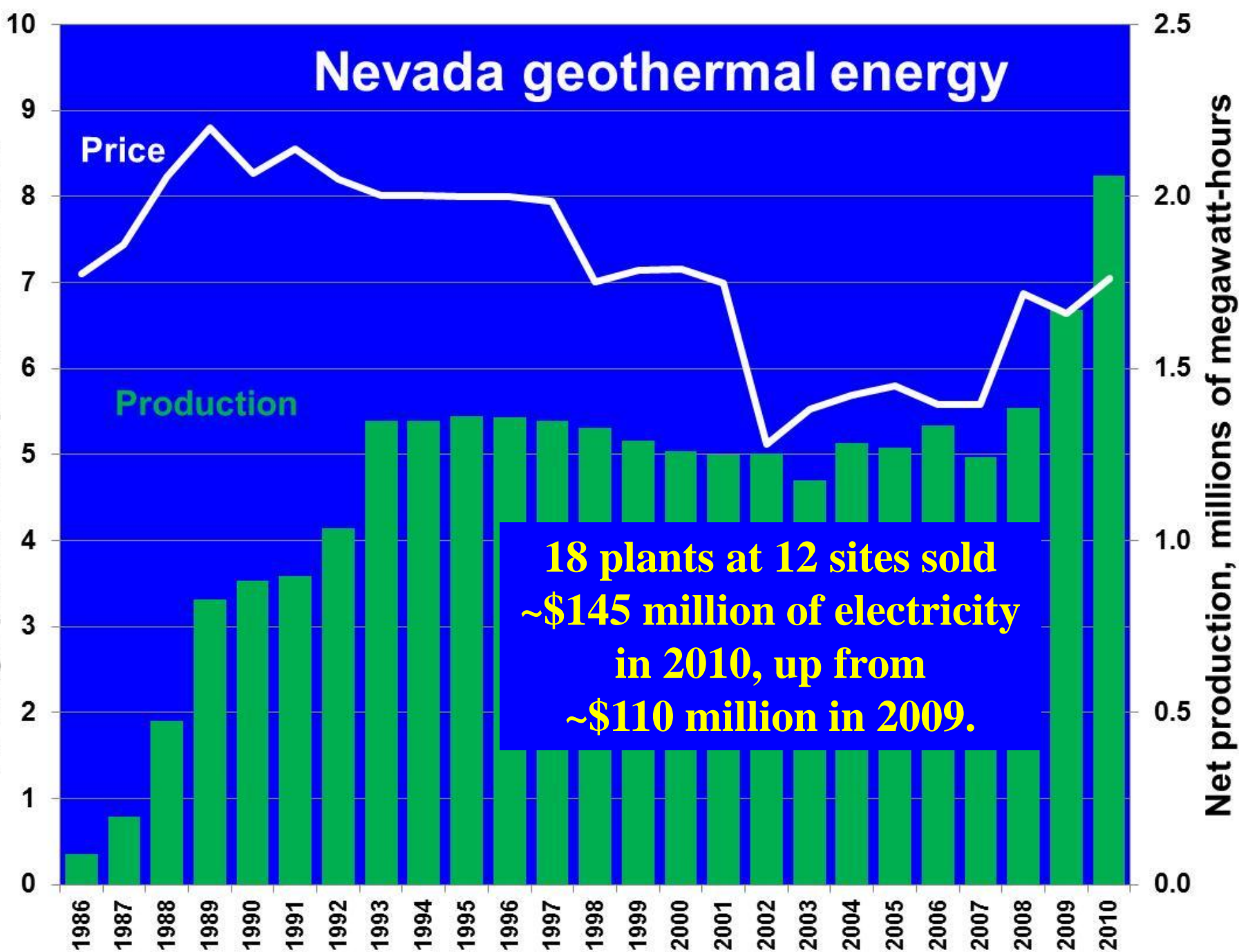
Average price, cents per kilowatt-hour

Price

Production

Net production, millions of megawatt-hours

18 plants at 12 sites sold
~\$145 million of electricity
in 2010, up from
~\$110 million in 2009.



Nevada geothermal power



Megawatts

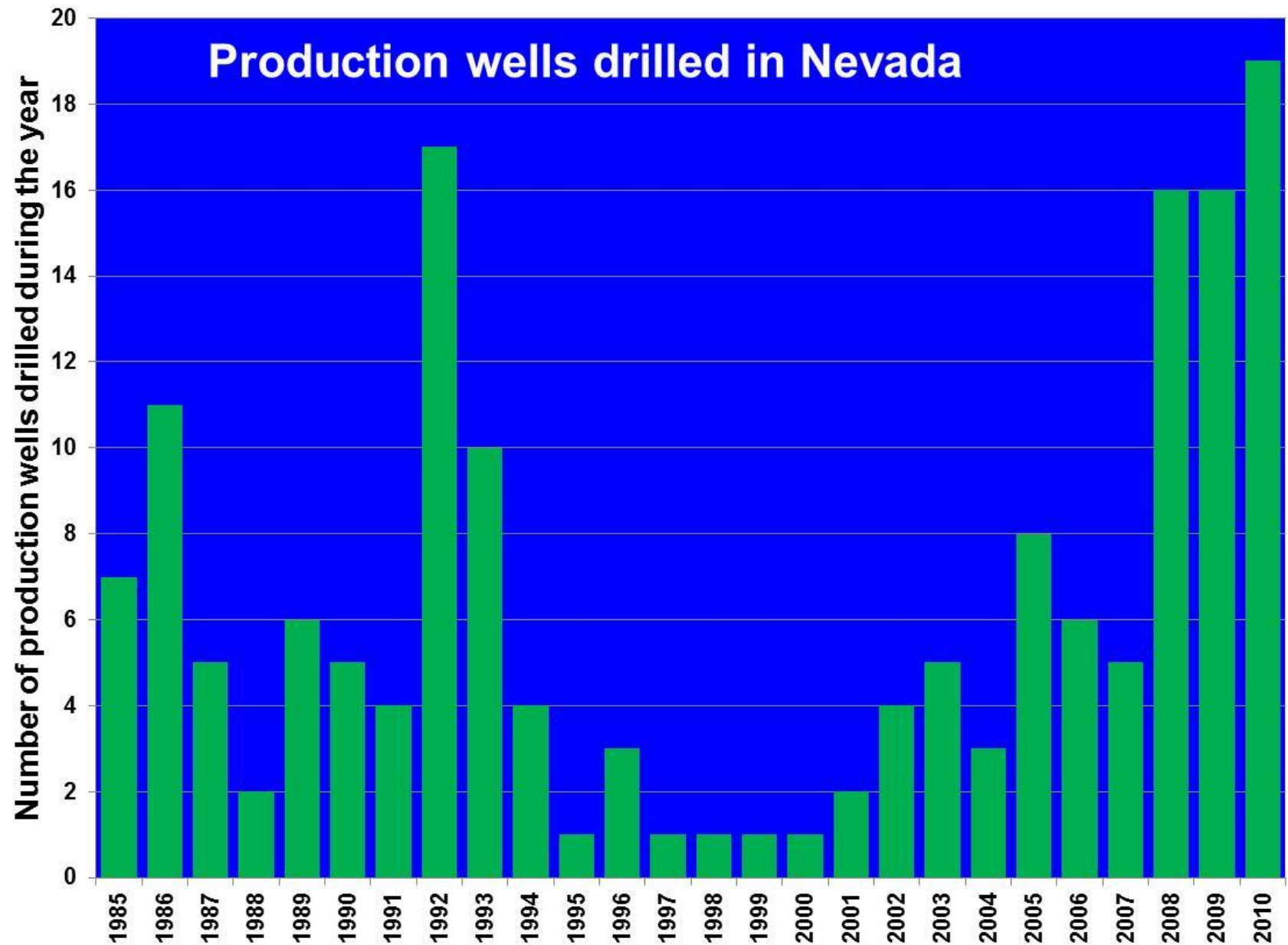
Nameplate capacity

Average net output

Net output lags behind capacity. Current projects should add 2,100 to 2,400 MW of capacity within 10 years.

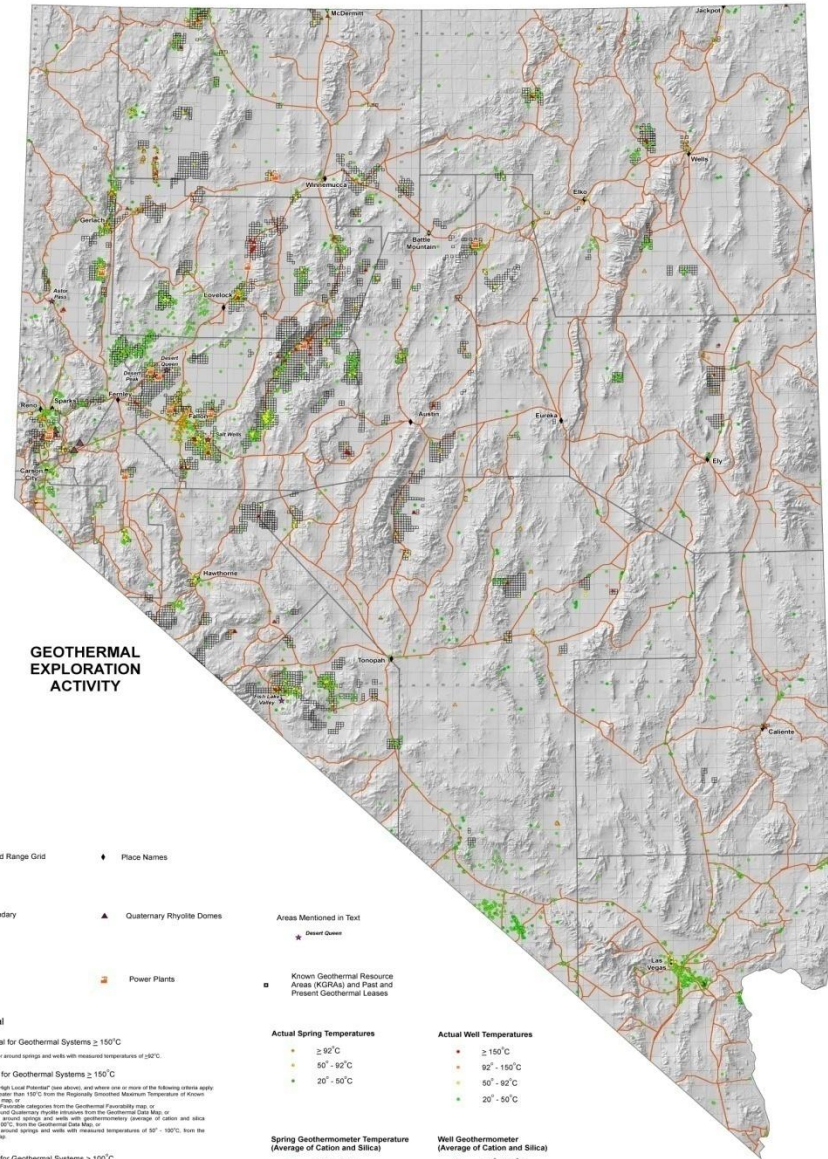
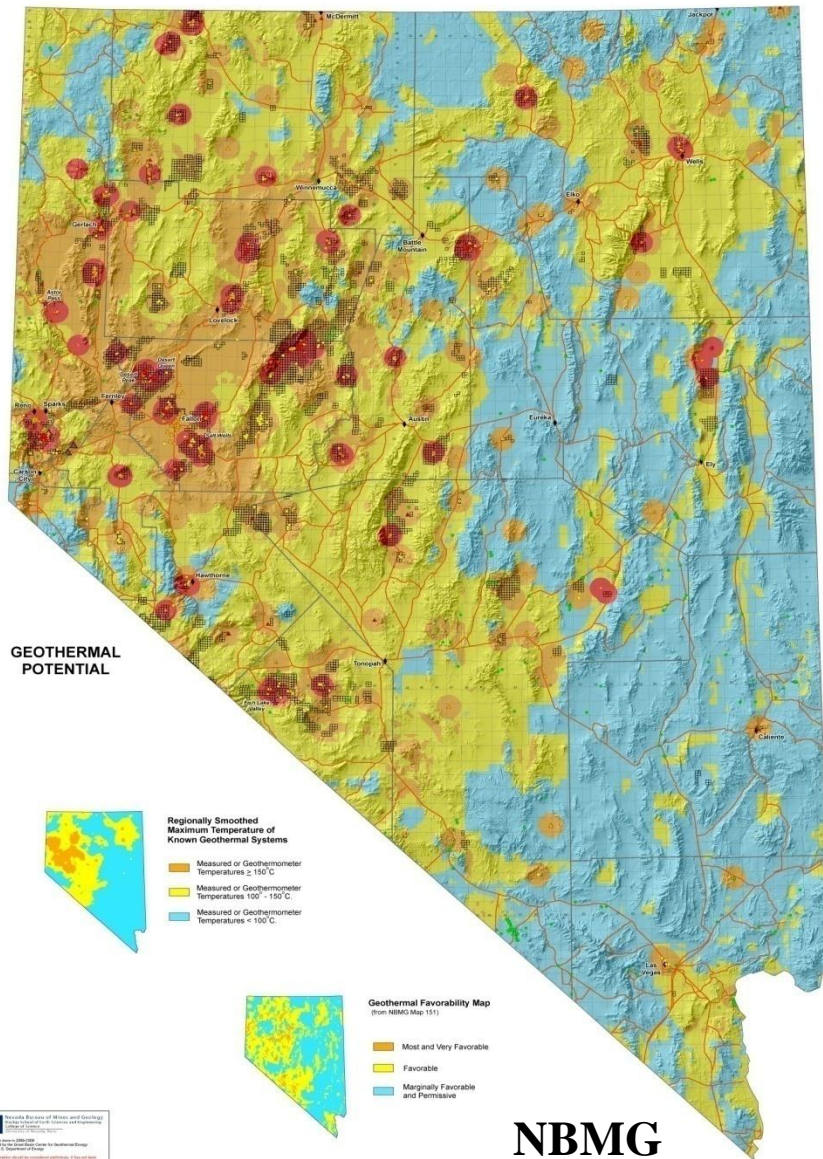
1985 1986 1987 1988 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010

Companies continue to drill new geothermal exploration and production wells.

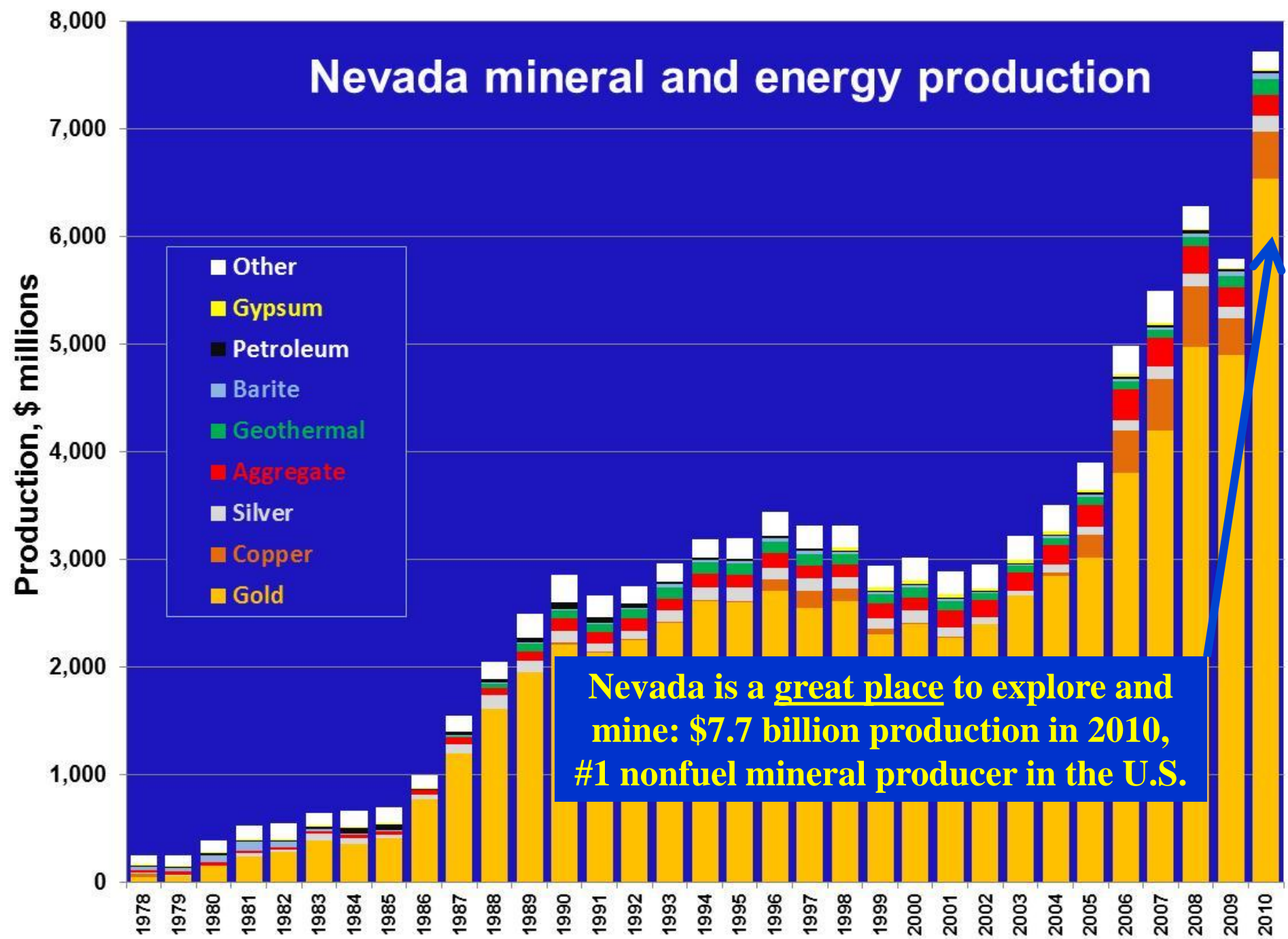


PRELIMINARY GEOTHERMAL POTENTIAL AND EXPLORATION ACTIVITY IN NEVADA

Richard Zehner, Mark Coolbaugh, and Lisa Shevenell
2009



Nevada mineral and energy production





“Sir! Sir! Kindly remove the bolo tie and set it on the ground—nice and slow!”

NEVADA MINING FINANCIAL ASSURANCE

(in millions)

	2003	2005	2007	2008	2009	2010	2011	Nov 2011
Bonds	\$272	\$248	\$210.6	\$214.0	\$328.2	\$393.0	\$998.9	\$1,156.4
Letters of Credit		\$254	\$412.7	\$618.1	\$654.5	\$629.9	\$413.4	\$426.3
CD / Cash		\$4	\$4.7	\$9.3	\$3.9	\$6.1	\$7.0	\$10.7
Corp Guarantee	\$271	\$204	\$187.3	\$182.0	\$179.7	\$183.7	\$183.0	\$180.8
USFS	\$14	\$10	\$12.3	\$12.5	\$13.5	\$13.3	\$13.3	\$13.7
Bond Pool	\$1	\$1	\$2.3	\$2.7	\$2.2	\$2.2	\$2.2	\$2.2
Total	\$558	\$721	\$829.9	\$1,038.6	\$1,182.0	\$1,228.2	\$1,617.8	\$1,790.0

NOTE: Data from the Nevada Division of Environmental Protection

Mining Districts of Nevada



Exploration is occurring in most of Nevada's 17 counties and many of its 526 mining districts.



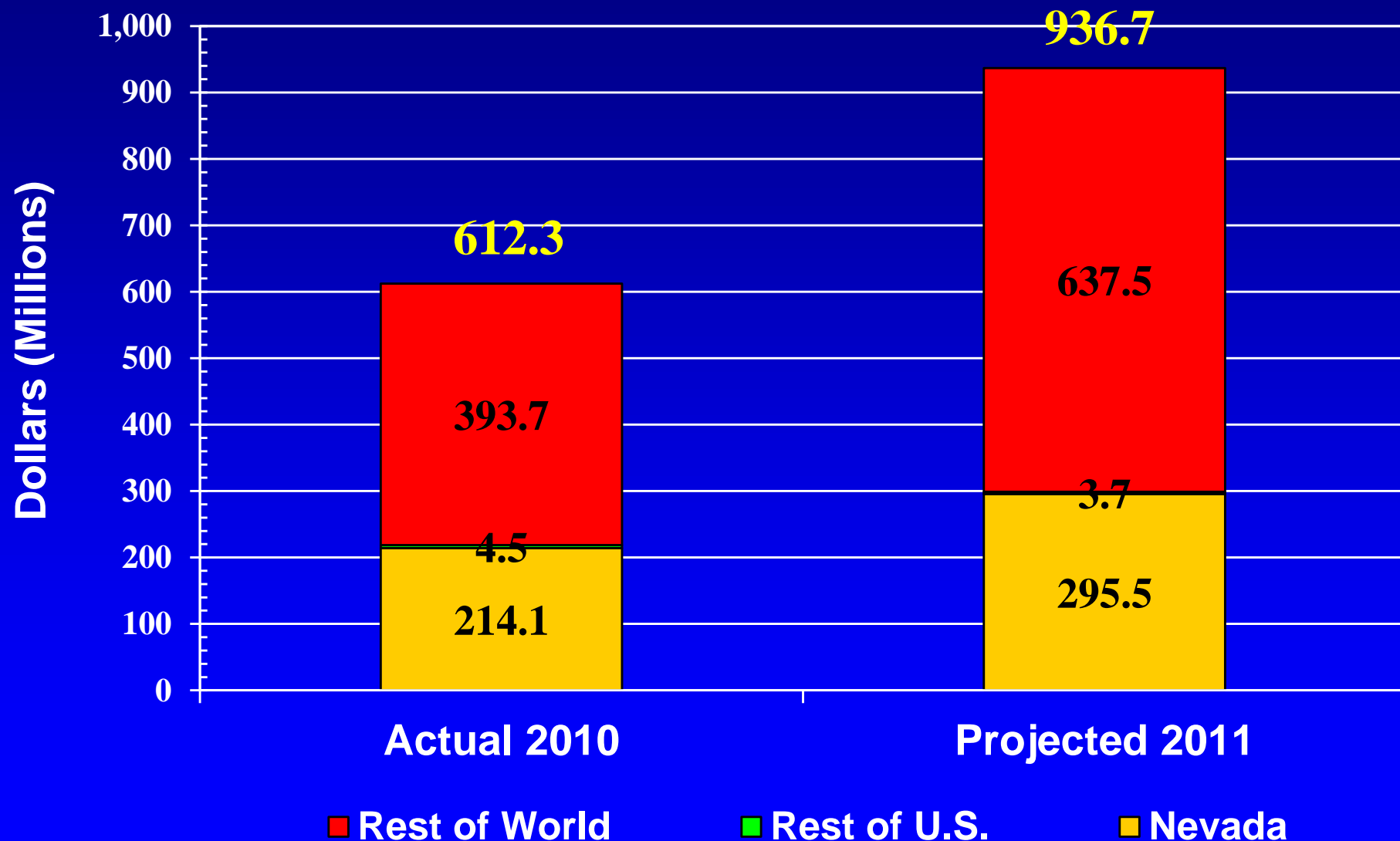
NEVADA EXPLORATION SURVEY 2010

- **NDOM seventeenth annual survey**
 - **Level of exploration activity**
 - **Factors influencing these levels**
- **Exploration and mining companies with projects or claims in Nevada**
- **17 respondents from 85 questionnaires**
- **All large mining companies are included**

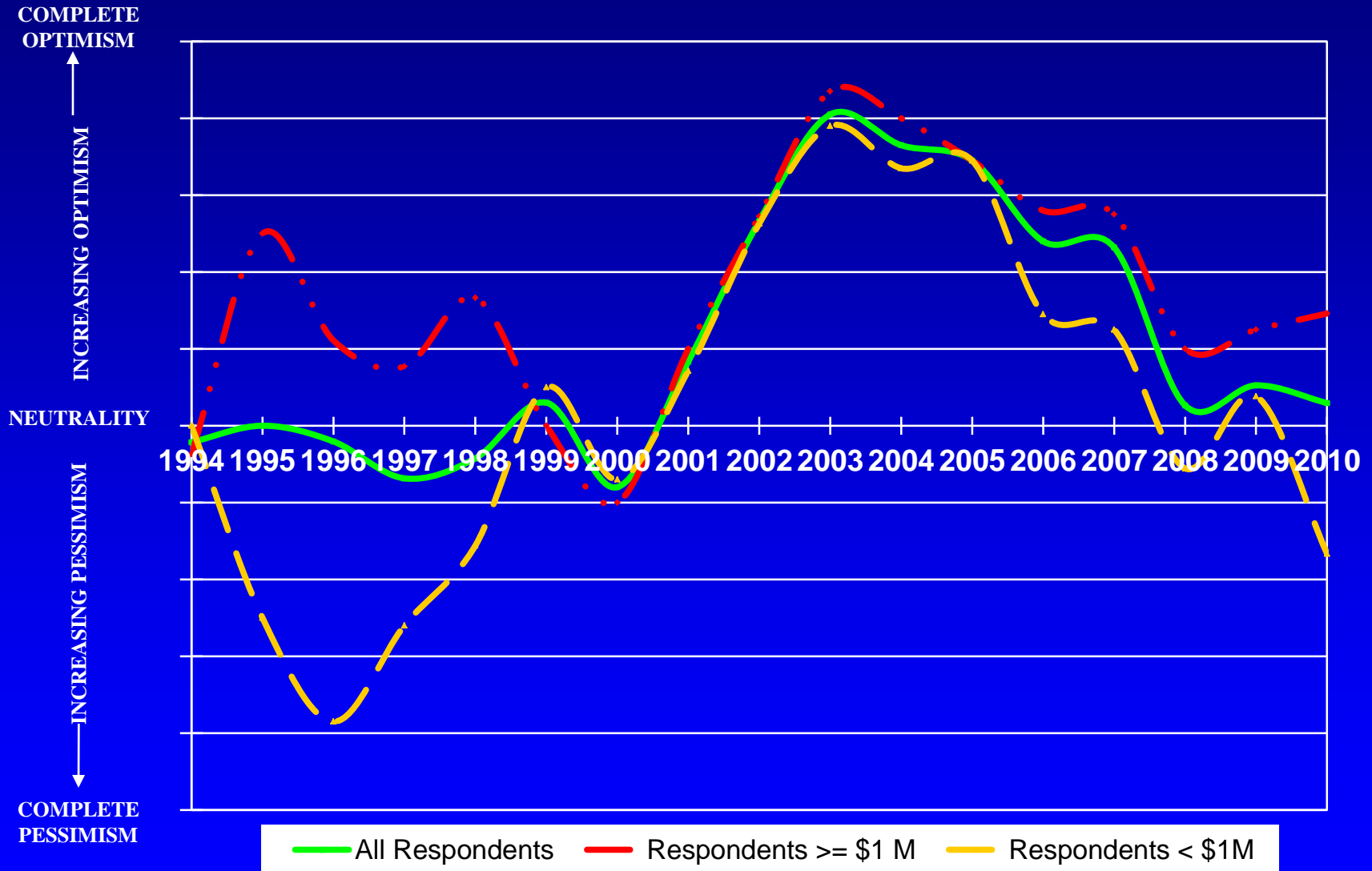
EXPLORATION SURVEY TOPICS

- **Exploration expenditures**
- **Geologists employed**
- **Number of claims held**
- **Breakdown of exploration expenditures**
- **Factors influencing activity**
- **Type of reserve replacement**
- **Overall attitude toward exploration**

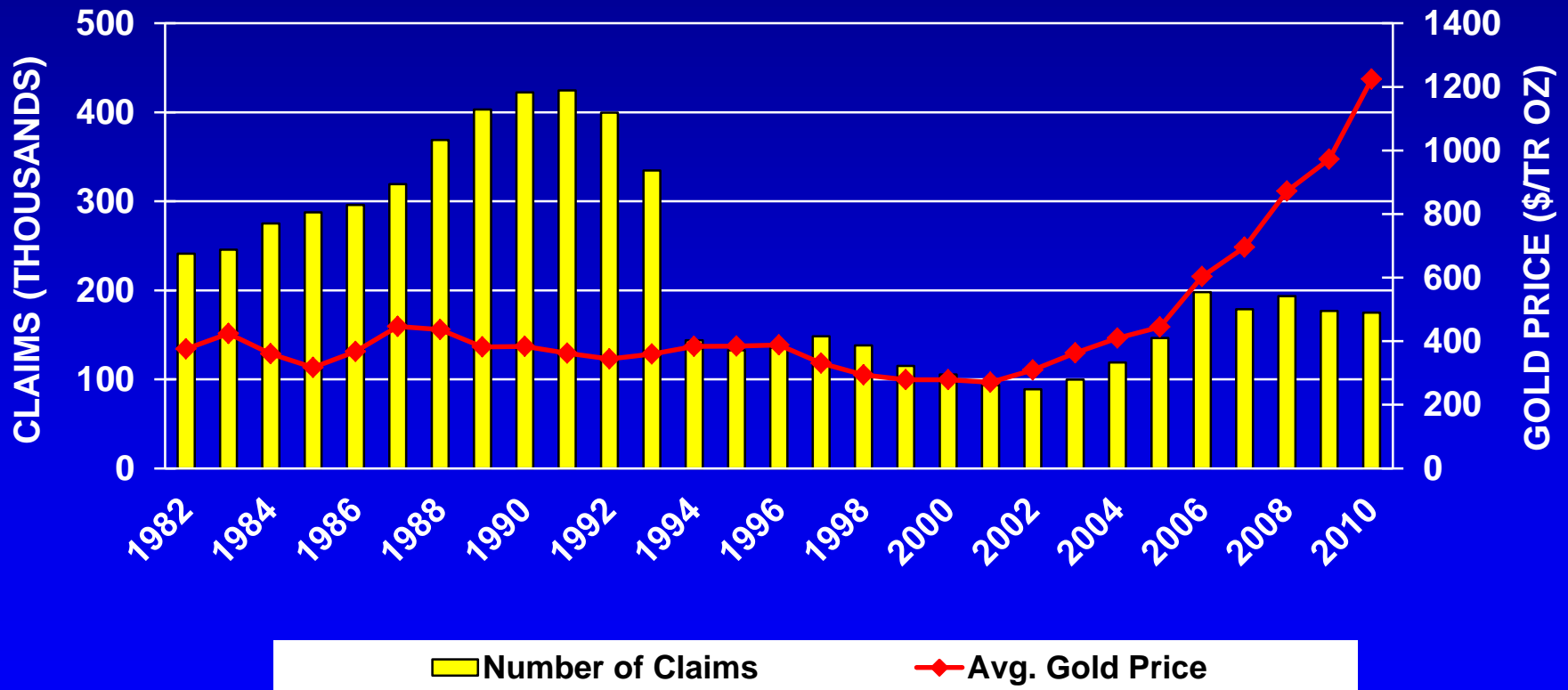
EXPLORATION SPENDING 2010/2011



OPTIMISM INDEX 1994-2010



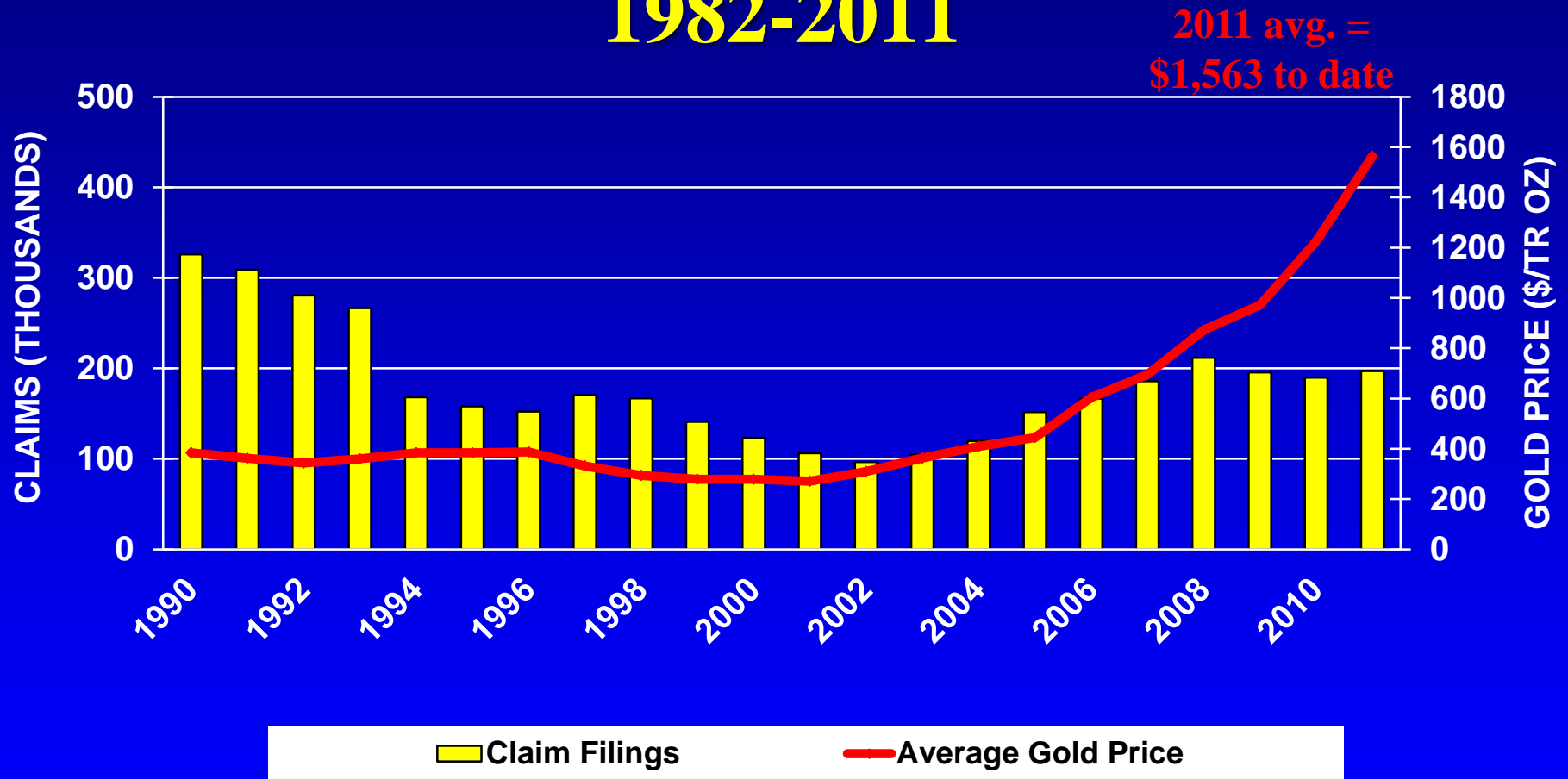
ACTIVE CLAIMS & GOLD PRICES 1982-2010



NOTE: Claim data from the BLM Public Land Statistics

CLAIM FILINGS & GOLD PRICES

1982-2011



196,977 claim filings in FY2011 (up 3.8% from FY2010)

NOTE: Claim Filings in Fiscal Year from NDOM Financial Statements

NEW CLAIMS STAKED IN 2010

2007 = 29,601

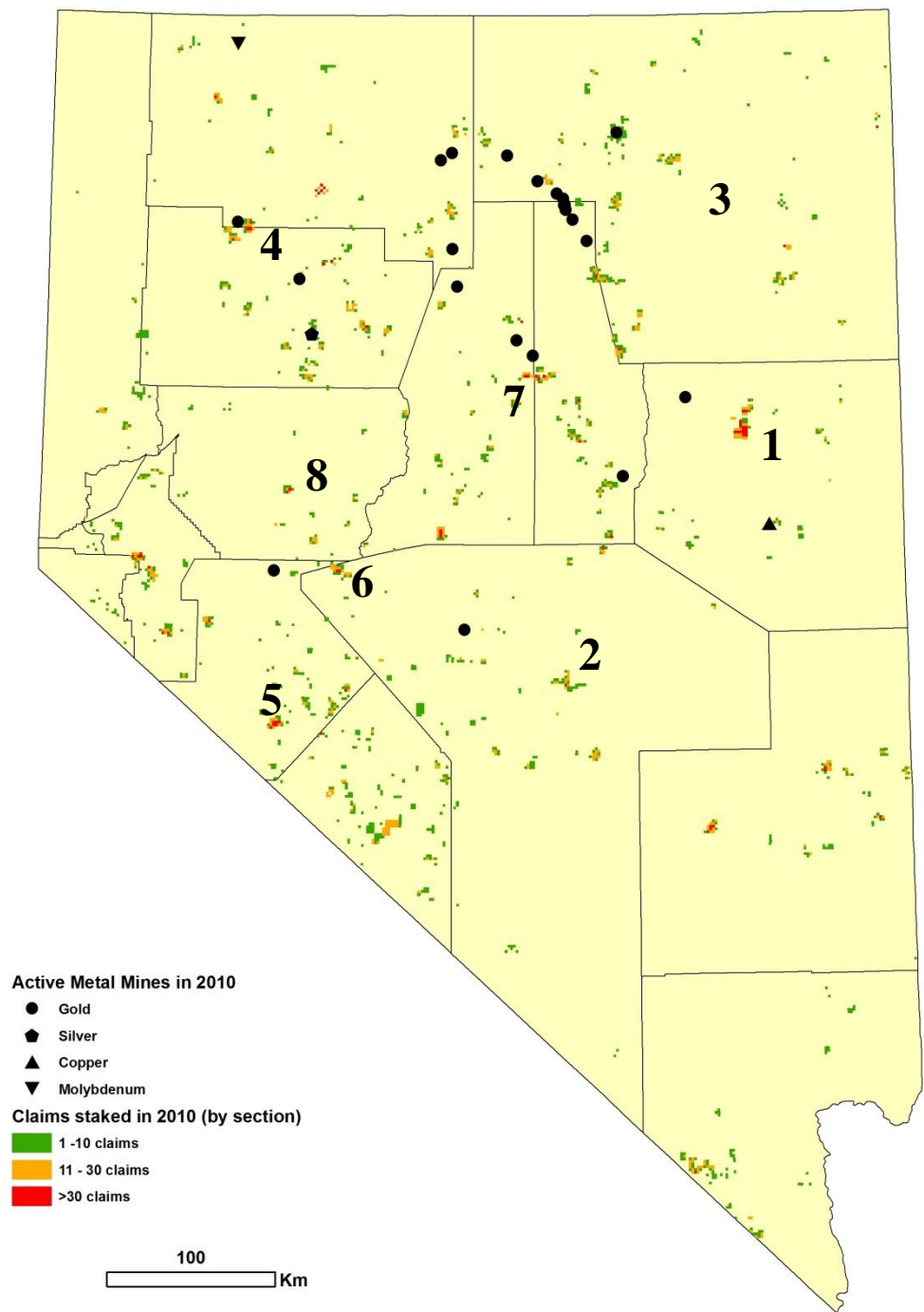
2008 = 32,249

2009 = 12,300

2010 = 17,237

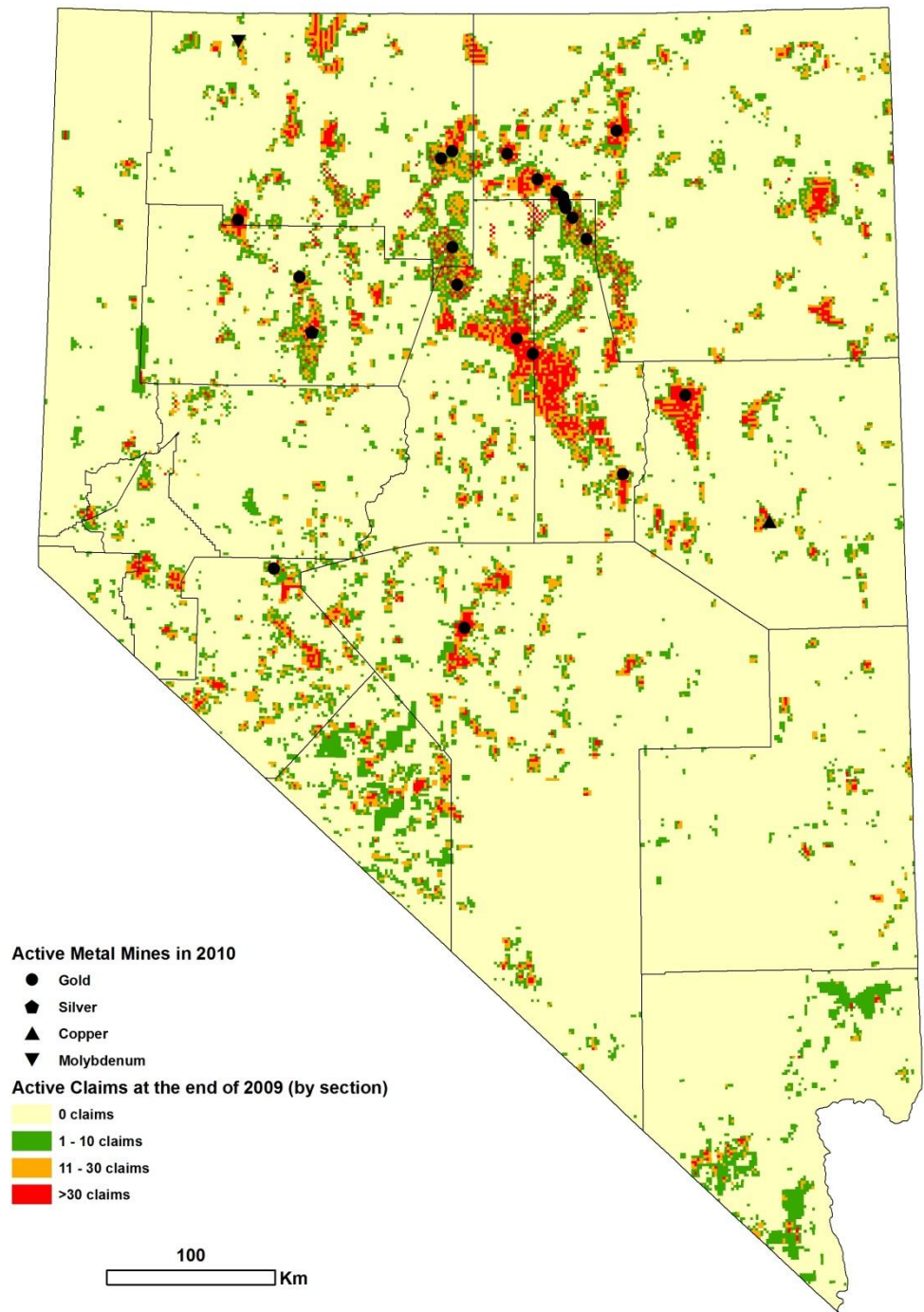
- 1) Quaterra Alaska Inc = 1,721
- 2) Newmont USA Ltd = 502
- 3) EPH 3:20 LLC = 466
- 4) Hycroft Resources & Dev. Inc = 466
- 5) Lamb Jan B = 462
- 6) Asarco LLC = 445
- 7) Genesis Gold Corp = 418
- 8) Buena Vista Minerals Inc = 410

Data from BLM Public Land Statistics
and John Muntean, NBMG



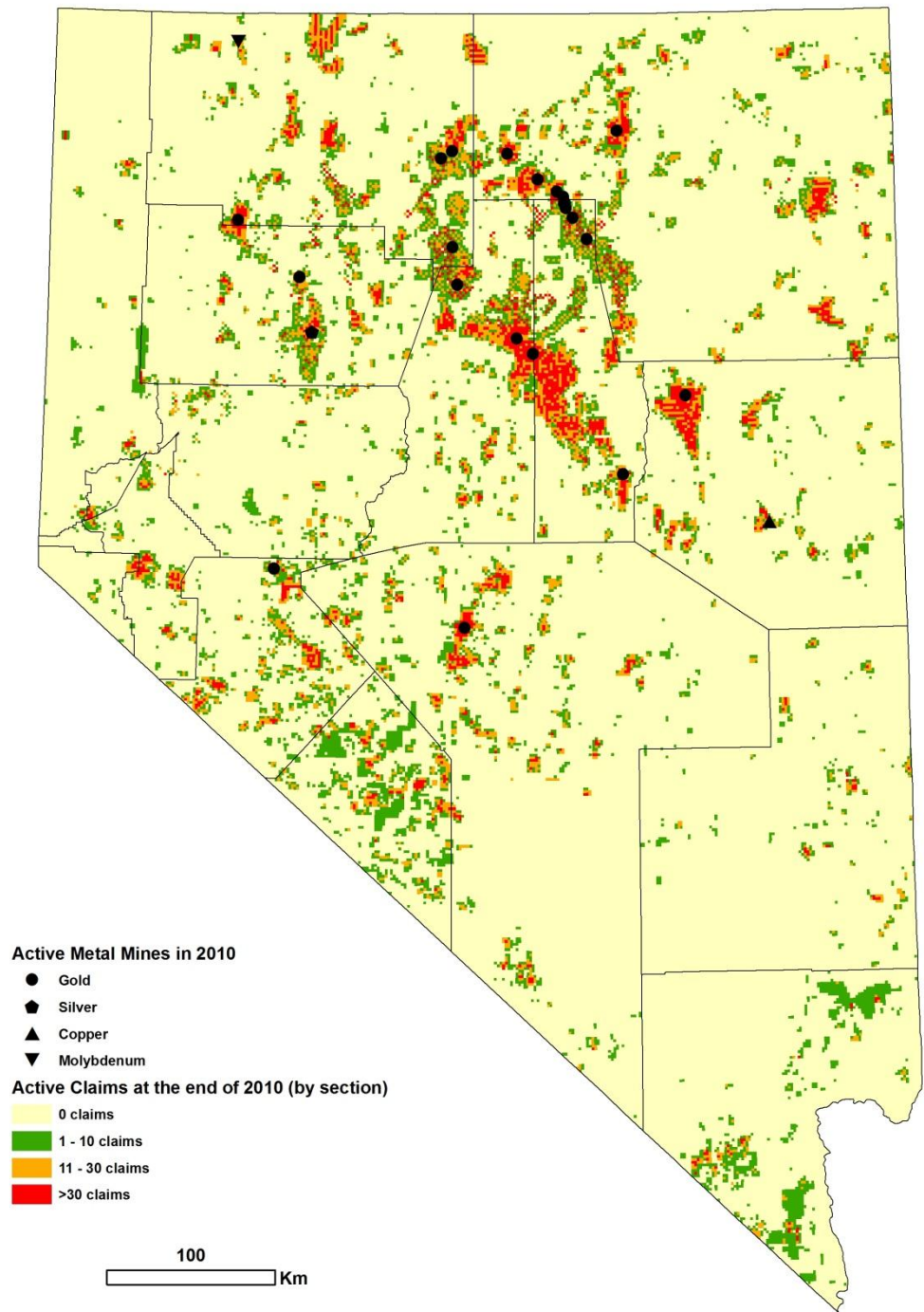
ACTIVE CLAIMS as of December 2009 (by section)

J. Muntean, NBMG,
from BLM LR2000 records



ACTIVE CLAIMS as of December 2010 (by section)

J. Muntean, NBMG,
from BLM LR2000 records



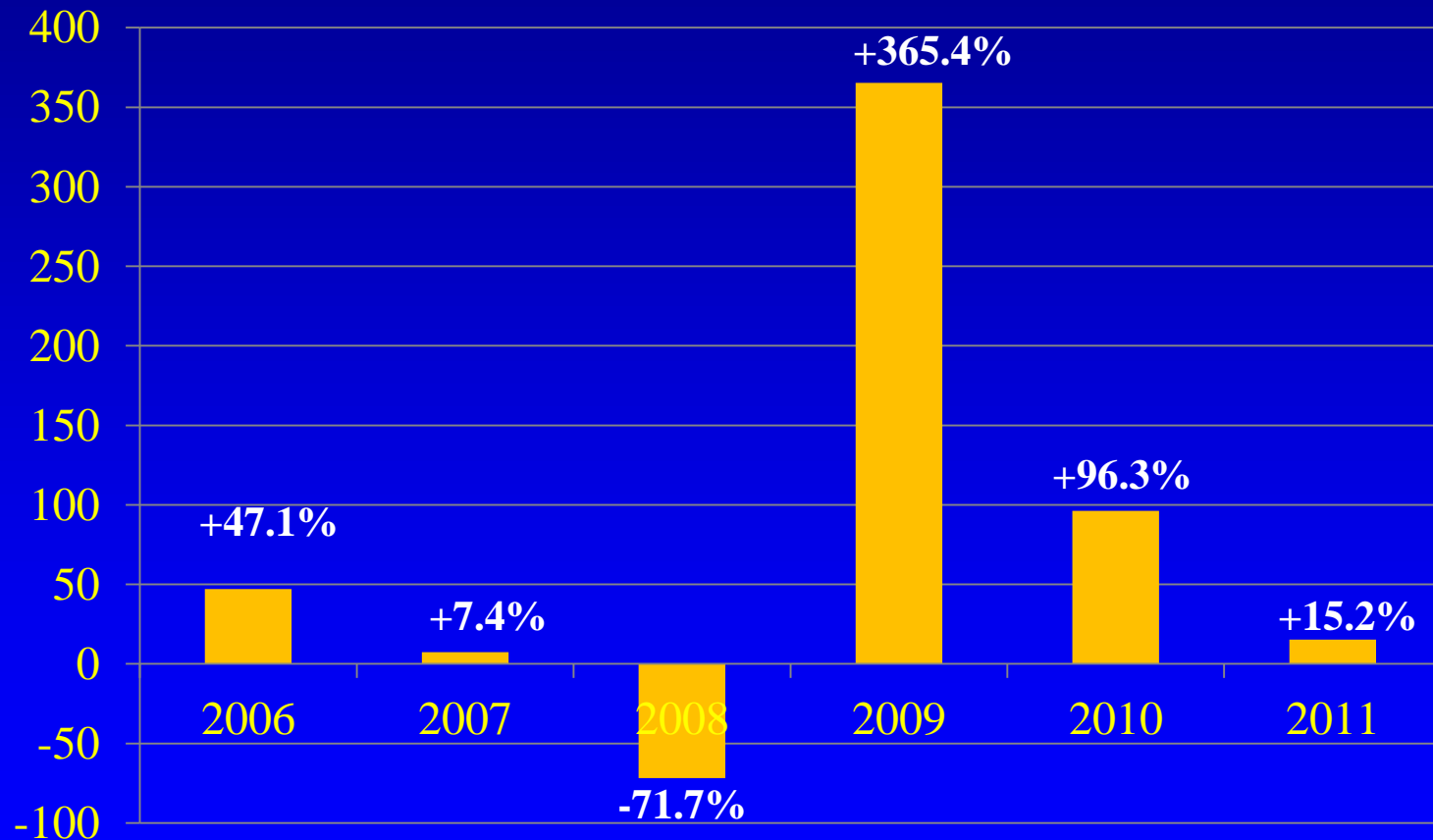


ADDITIONAL MINING CLAIM FEE

- **Enacted Feb. 2010 by 26th Special Session**
- **Collected \$18.1 M (of a projected \$25 M)**
- **Repealed by 2011 Legislature; refunds to be from the Nevada Dept. of Taxation**
- **\$8.8 M in refunds approved to date**
(<http://nevadabudget.org>)
- **NV Supreme Court rejected state appeal**


NEVADA'S TOP 10 PROJECTS – 2006 to 2011

Percent Return on Investment



* Backward-Looking Statement: Although we have great hindsight, neither the Nevada Division of Minerals nor the Nevada Bureau of Mines and Geology have any expertise whatsoever to be able to advise people on how to invest. We're government employees, for goodness sake. Whatever you do, don't take any advice from us seriously.

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NEVADA'S TOP 10 PROJECTS - 2010

(If you had invested equally in each company, 12/09 to 12/10)

Kings Valley	Western Lithium	-25.0%
Long Canyon	Fronteer	122.8%
Lower Horse Canyon	Barrick Gold	13.9%
Mt. Hope	General Moly	131.0%
Pumpkin Hollow	Nevada Copper	31.8%
Sandman	Fronteer	122.8%
South Arturo	Barrick Gold	13.9%
Spring Valley	Midway Gold	1.2%
Springer Mine	EMC Metals	516.7%
West Pequop	Agnico Eagle	33.8%
TOTAL RETURN		96.3%

NEVADA'S TOP 10 PROJECTS - 2011

(If you had invested equally in each company, 12/9/10 to 11/27/11)

Gibellini Hill	American Vanadium	-11.0%
Kings Valley	Western Lithium	-72.6%
Long Canyon	Fronteer to Newmont	0%
Mt. Hope	General Moly	-49.6%
Pumpkin Hollow	Nevada Copper	25.1%
Sandman	Fronteer to Newmont	0%
South Arturo	Barrick Gold	-6.3%
Spring Valley	Midway Gold	177.1%
Spruce Mountain	Renaissance Gold	-42.8%
Wilco	Rye Patch Gold	46.2%
	Pilot Gold + Cash	
TOTAL RETURN		15.2%

NEVADA'S TOP TEN EXPLORATION PROJECTS 2012



GIBELLINI HILL - Eureka Co.

American Vanadium Corporation

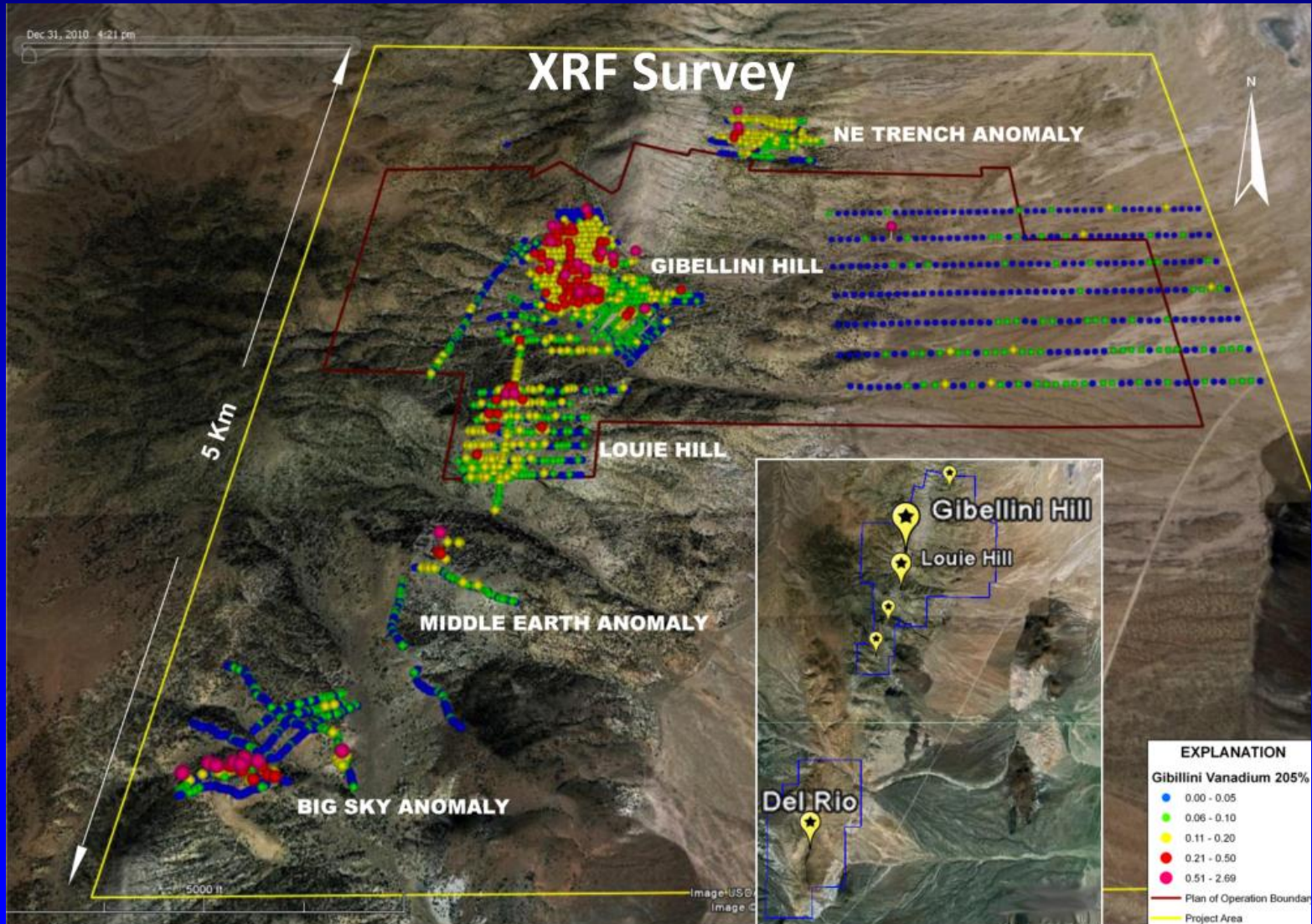
www.americanvanadium.com

A variety of vanadium minerals hosted in an organic-rich siliceous black shale with an oxidation zone of up to 100 feet



GIBELLINI HILL

American Vanadium Corporation



GIBELLINI HILL

American Vanadium Corporation

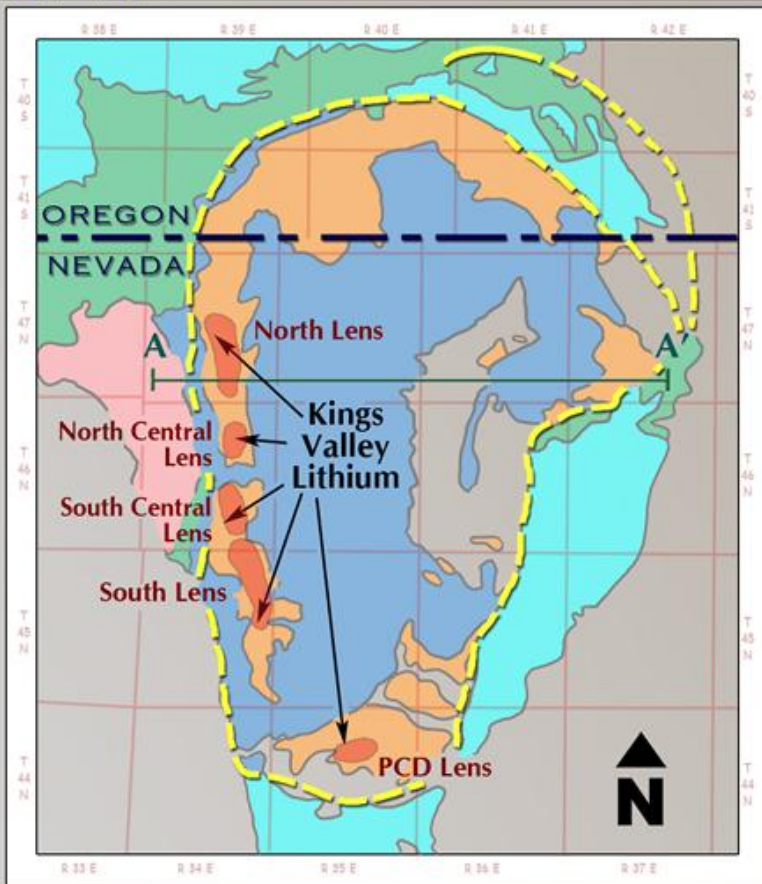
- **Potentially lowest cost primary vanadium producer in the world and could supply 5% of world's current demand for vanadium**
- **Total drilling is 51,000 feet from 280 holes by the company and previous operators**
- **NI 43-101 compliant “positive feasibility study” in 2011 added 41 M pounds (inferred) at Louie Hill to resource of 18 M tons @ 0.339% V_2O_5 = 122 M pounds of V_2O_5 (indicated) at Gibellini Hill**

KINGS VALLEY – Humboldt Co.

Western Lithium Corporation

www.westernlithium.com

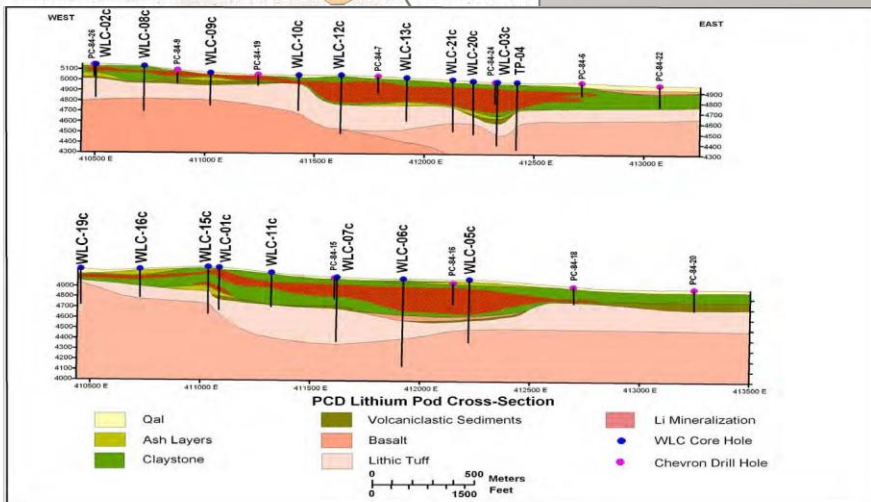
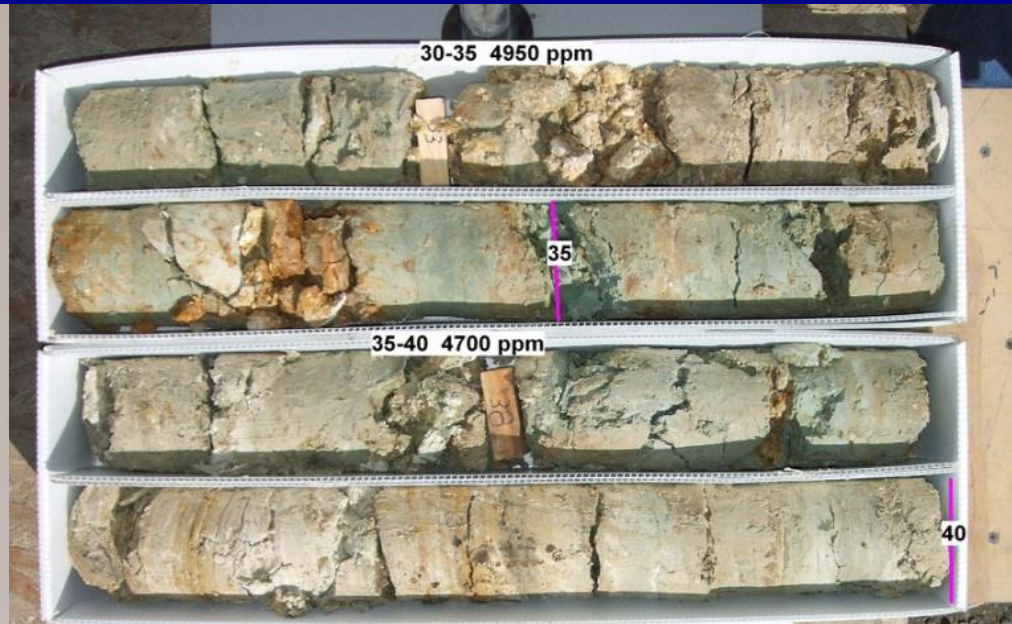
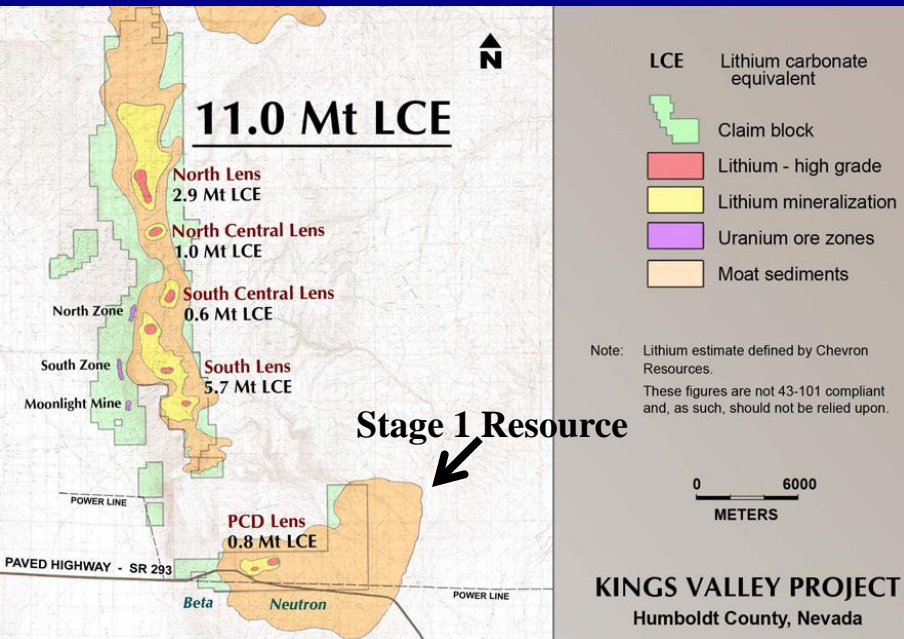
KINGS VALLEY LITHIUM PROJECT, NEVADA



Lithium-enriched hectorite clay in altered volcaniclastic moat sediments of the Miocene McDermitt Caldera

KINGS VALLEY

Western Lithium Corporation



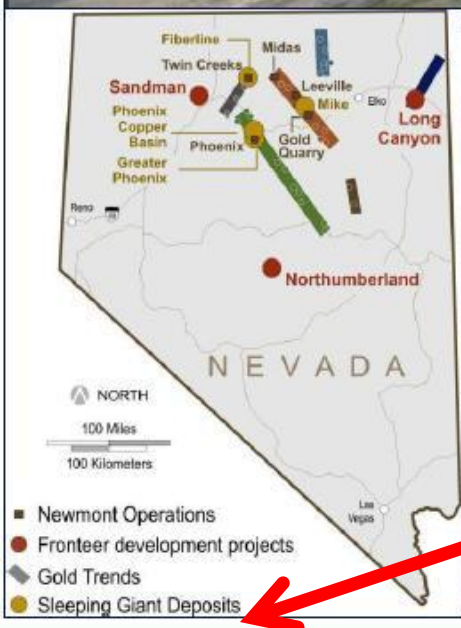
KINGS VALLEY

Western Lithium Corporation

- **Stage 1 resource (as of June, 2011):**
 - **Measured and Indicated**
 - **37.3 million tonnes grading 0.404% lithium**
 - **Li_2CO_3 equivalent (LCE) = 801,000 tonnes**
 - **Inferred**
 - **24.2 million tonnes grading 0.386% lithium**
 - **Li_2CO_3 equivalent (LCE) = 498,000 tonnes**
- **Capital Costs = \$427 million, 25 yr mine life**
- **Prefeasibility completed in 2011, demonstration plant underway, production in 2014**

LONG CANYON – Elko Co.

Newmont Mining Corporation



Near surface oxidized sediment-hosted Carlin-type gold deposit associated with solution breccias and stratabound horizons

LONG CANYON

Newmont Mining Corporation

Resource Estimate (Fronteer):
558,000 oz M&I at 3.67 g/t
456,000 oz Inferred at 3.97 g/t

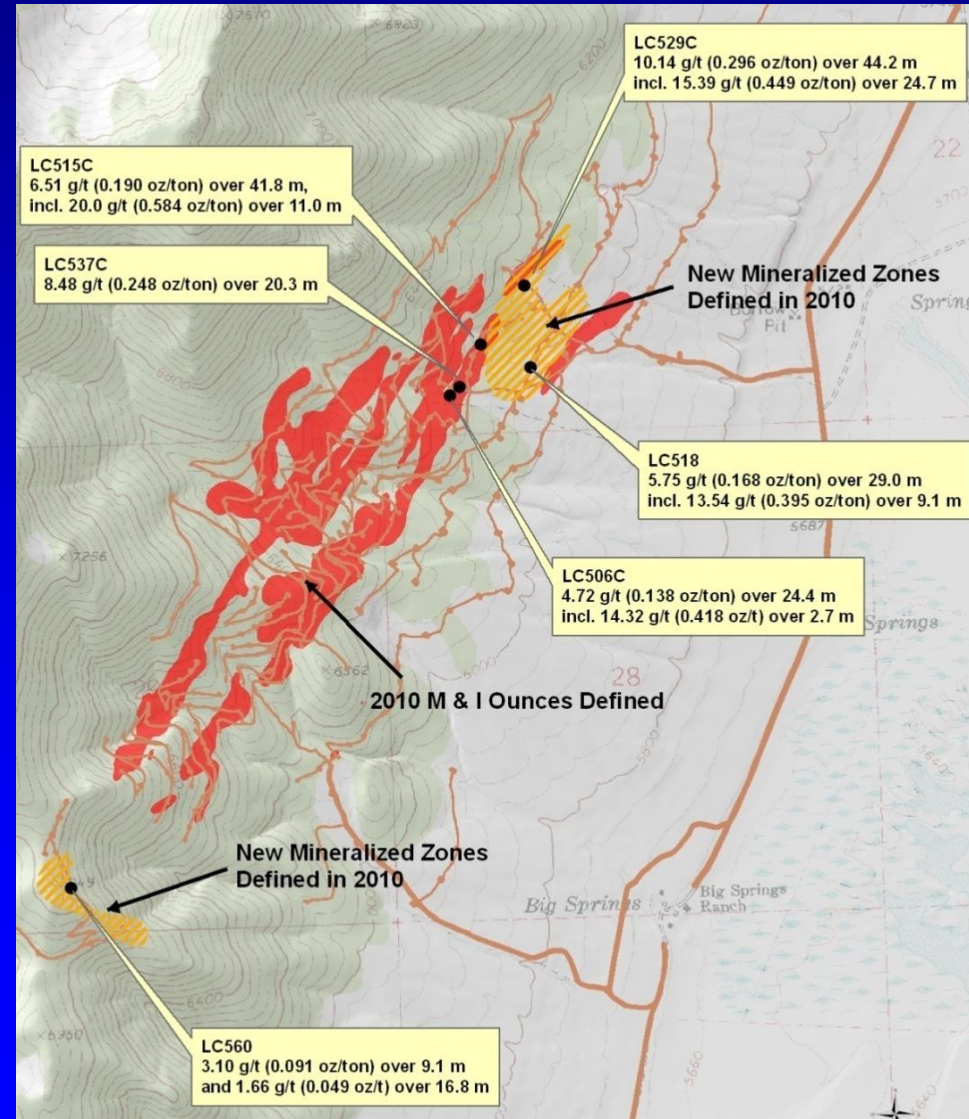
Long Canyon core



Hole LC577C is the best intercept to date from Long Canyon, with high-grade mineralization of 12.30 grams per tonne gold over 50.4 metres.

This photo demonstrates an interval of solution collapse breccia-hosted mineralization marked by decalcification and alternating zones of predominantly hematite (red) and scorodite (green), hosted in silty limestone. This style of alteration typifies high-grade areas in the northeastern portion of the deposit.

12.3 gpt gold over 50.4 m



LONG CANYON

Newmont Mining Corporation

Project Description

A Carlin-Type trend with potential for significant development and operating synergies

Key Statistics Estimates (Attributable to NEM)

Annual Production (Koz) ¹⁷ :	~275 – 350
CAS (\$/oz) ¹⁷ :	~\$375 - \$520
Anticipated Start Date:	~2017
Initial Capex (\$M) ¹⁸ :	\$350 - \$700

Recent Updates

- Completed 190 Core drill holes (total ~40Km)
- Up to 90 Km planned for 2011 and 2012
- Completed Scoping Study in July 2011

Representative Drill Results¹⁹

Total Depth (Meters)	Thickness (Meters)	Avg. Grade g/t Au
303	23.0	3.4
198	12.0	3.5
91	28.0	3.4
175	15.0	0.93
153	12.0	2.8
182	30.0	7.0
176	32.0	3.2



LONG CANYON

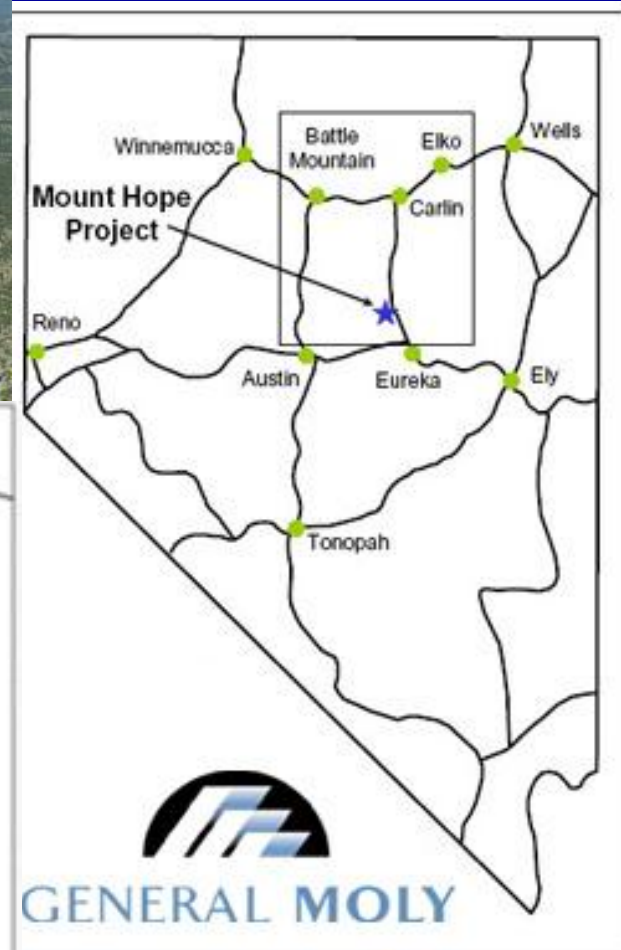
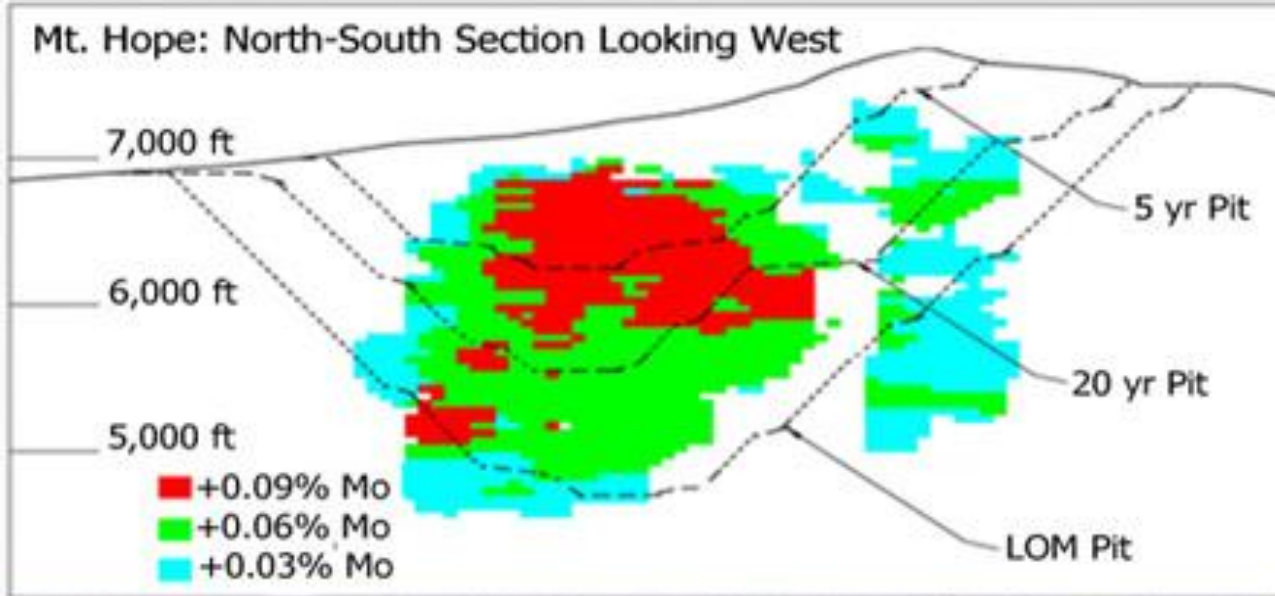
Newmont Mining Corporation

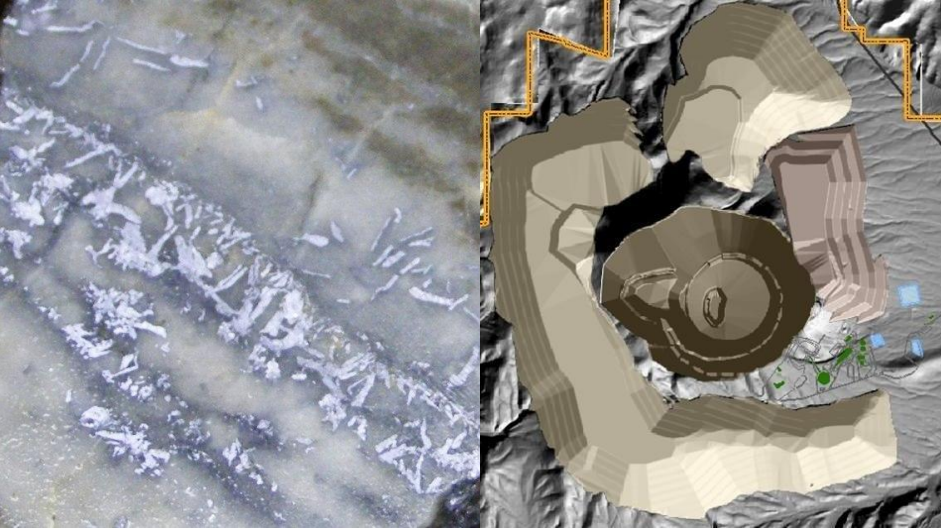
- **Planning to begin an 18 month construction phase in mid -2015**
- **Expected to yield 2 million to 2.5 million oz of gold over its 10 to 20 years of mine life**
- **Deposit is open to north and south**
- **Open pit mine with a mill and heap leach facility**
- **Full production in 2017**
- **Permanent work force of 400 employees**

Source: Elko Daily Free Press

MT. HOPE - Eureka Co.

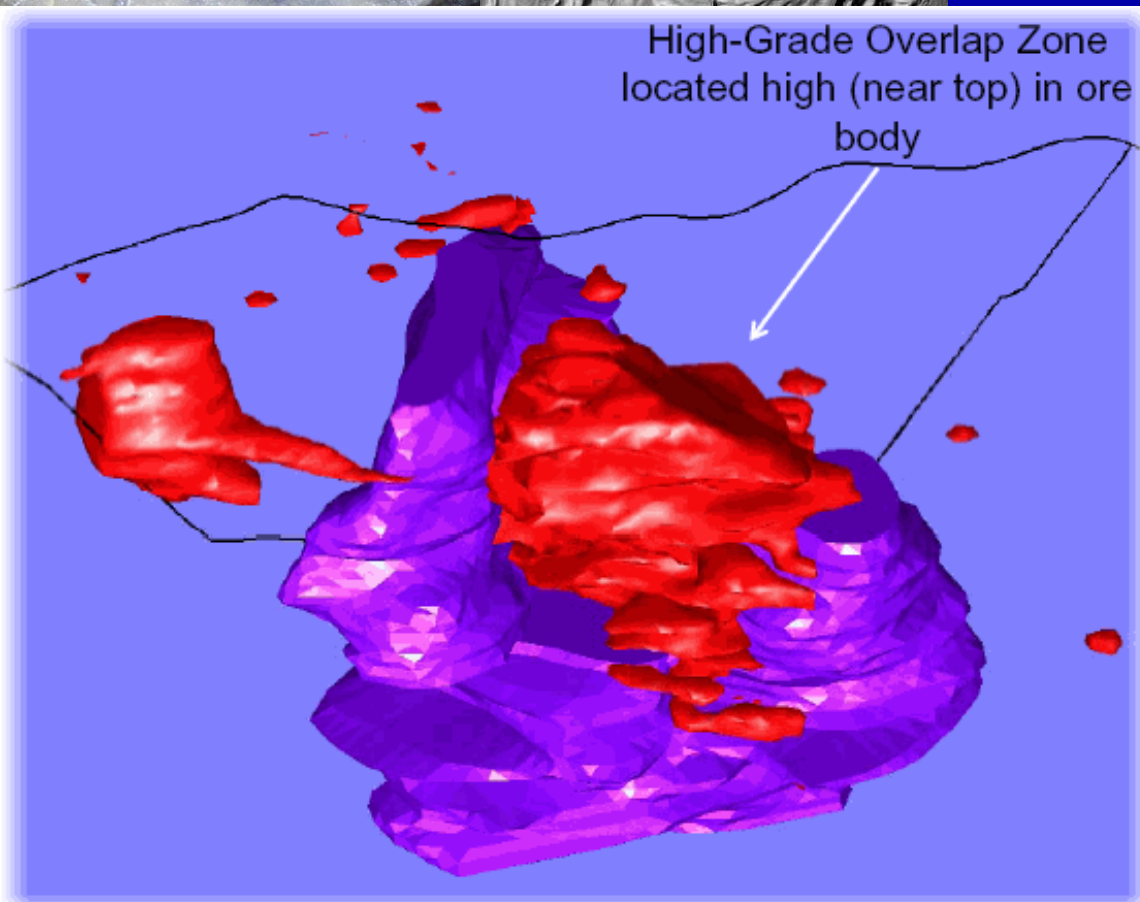
General Moly - www.generalmoly.com





MT. HOPE

General Moly



Classic molybdenum porphyry with two dome shaped shells of quartz porphyry weakly to densely veined by quartz stockworks containing molybdenite



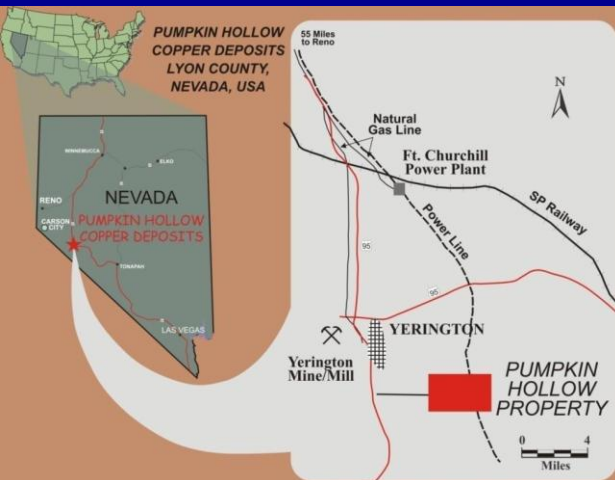
MT. HOPE

General Moly

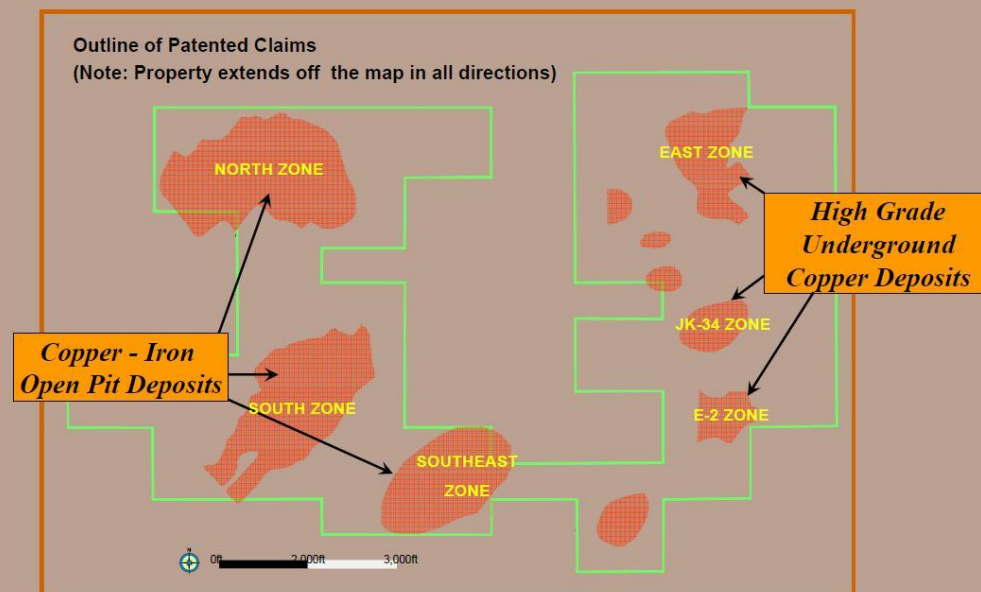
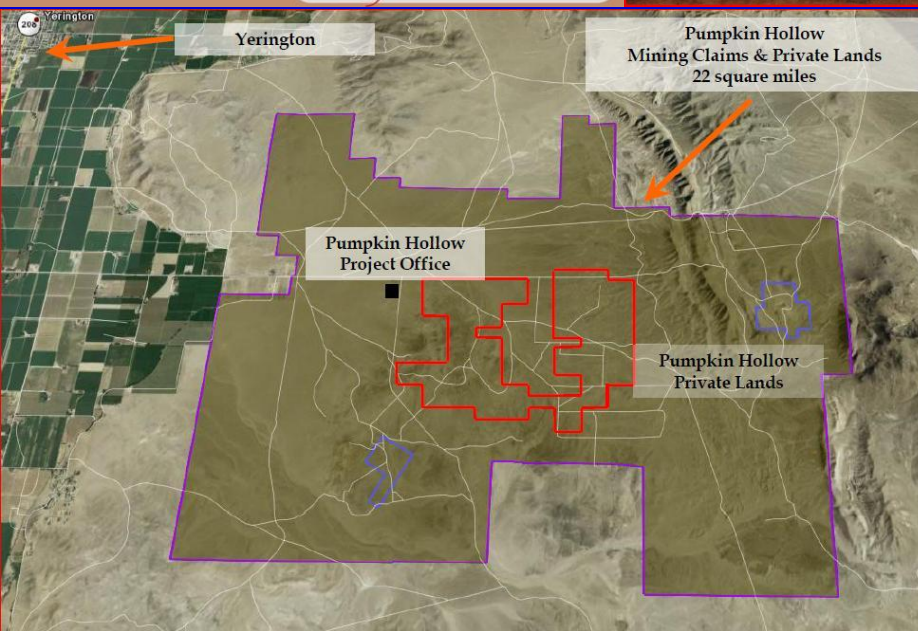
- **1.3 B lbs Mo (proven and probable)**
- **40 M lbs Mo/yr @ 0.103% Mo (first 5 yrs)**
- **Net Present Value of \$1.2 B at \$15/lb Mo**
- **Capital cost estimate \$1.2 B, 44 yr mine life**
- **Draft EIS completed in 2011, permits in 2012 and production in possibly in 2013**
- **Partners include ArcelorMittal now APERAM (India), POSCO (S. Korea), Hanlong (China)**

PUMPKIN HOLLOW - Lyon Co.

Nevada Copper - www.nevadacopper.com



**High grade
copper/magnetite skarn
associated with a copper
porphyry system**



A 3D block model of the North and South Deposits. The North Deposit is on the left, and the South Deposit is on the right. Three pit designs are shown: NC11-16 (779 ft. @ 0.53% Cu) in the North Deposit, NC11-17 (155 ft. @ 0.59% Cu) in the North Deposit, and NC11-23 (126 ft. @ 0.30% Cu) in the South Deposit. Open Target Areas are indicated by blue dashed circles. The model is oriented with North (N) at the top and East (E) at the right. The background is a dark blue gradient.

**Cu: 5.9 billion pounds
(measured and indicated)
9.6 billion pounds Cu total**

Ag: 42 Moz
(measured and indicated)
64 Moz Ag total

**Fe: 182 million tons
(measured and indicated)**



PUMPKIN HOLLOW

Nevada Copper Corporation

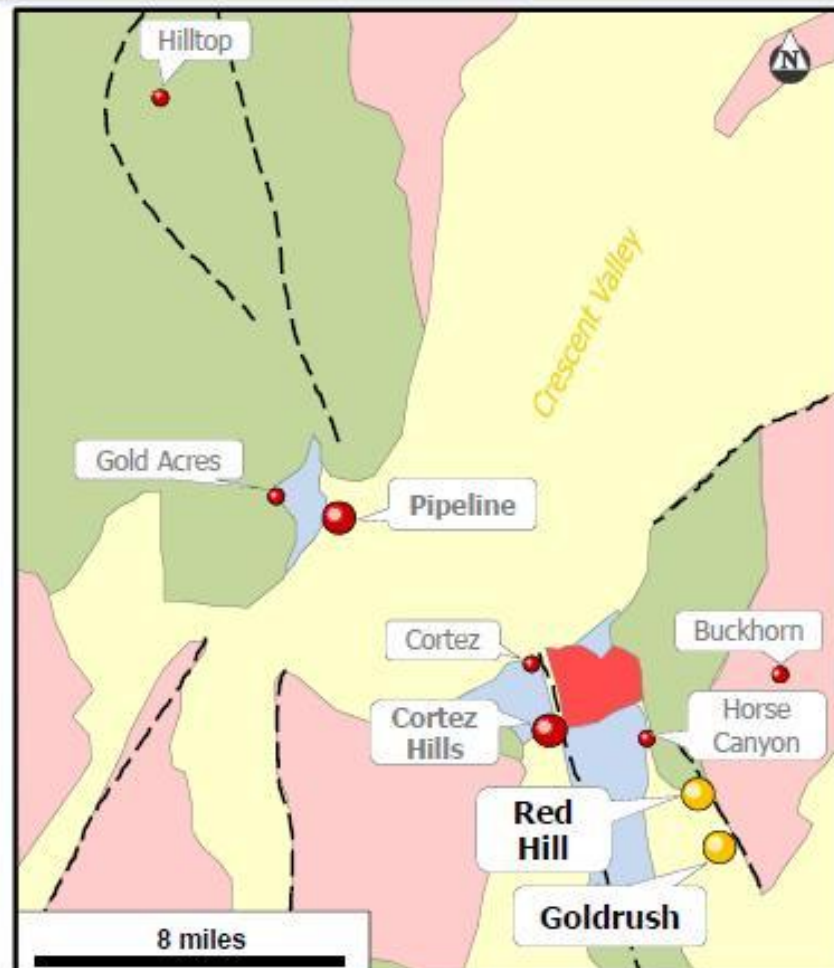
- **Integrated open pit and underground operation**
- **Throughput, 60,000 tpd, 90% open pit, 10 % underground**
- **Single copper concentrator**
- **Producing 85,000 to 125,000 tons copper per year**
- **Gold, silver, and iron by-products**
- **Mine life of 24 years**
- **Contract for shaft out for bid, collar Q1-2012**

RED HILL / GOLDRUSH – Eureka Co.

Barrick Gold Corporation – www.barrick.com

Cortez Camp - Long Discovery History BARRICK

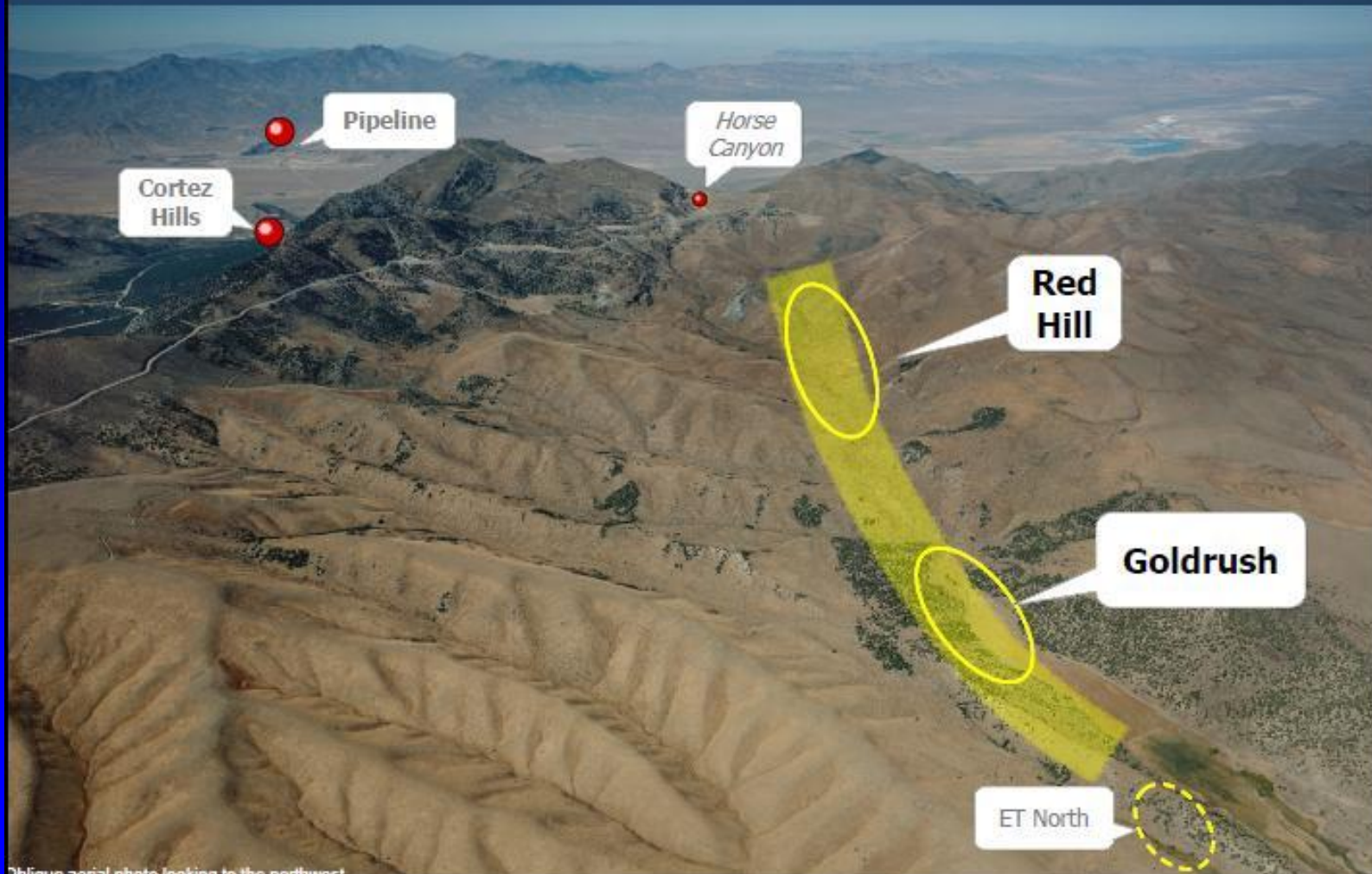
- High camp endowment of 39 M oz
- World-class mines and long discovery history
- **2 new discoveries**
- Potential for additional discoveries below cover



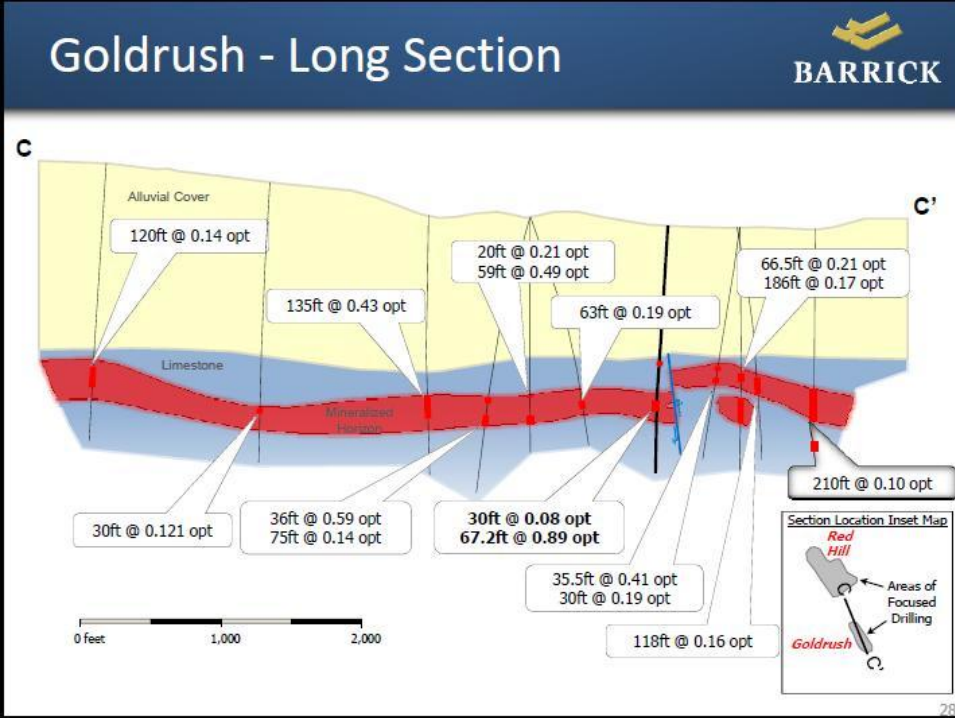
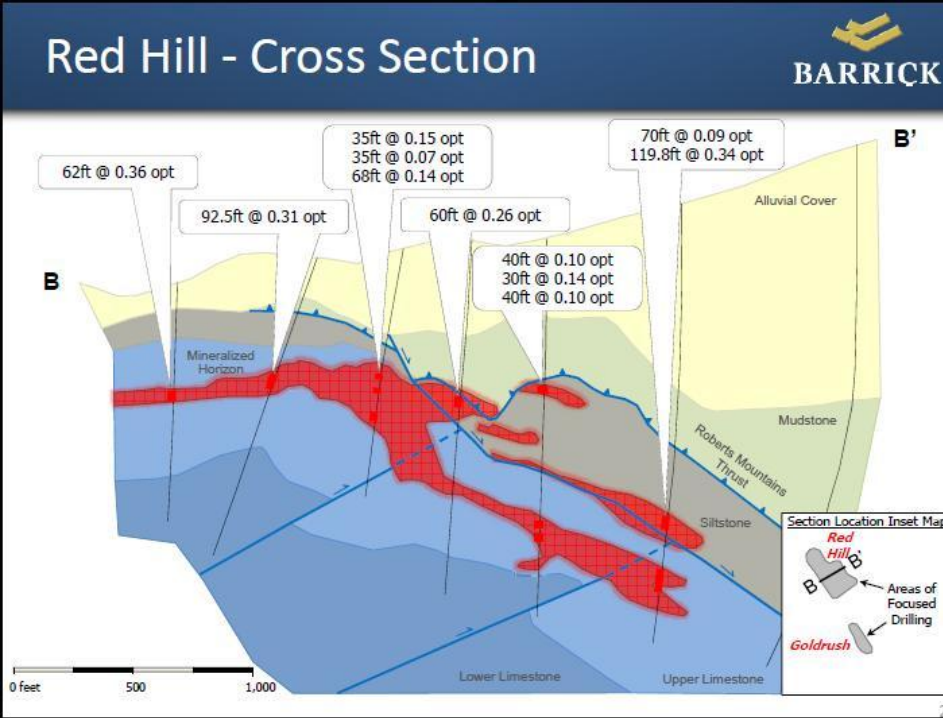
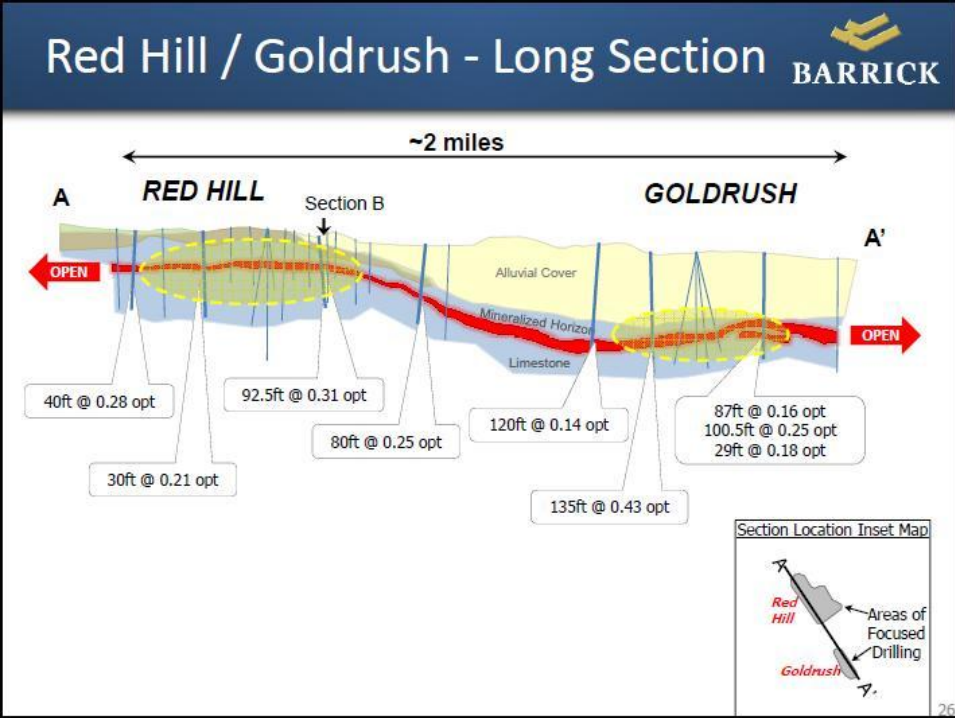
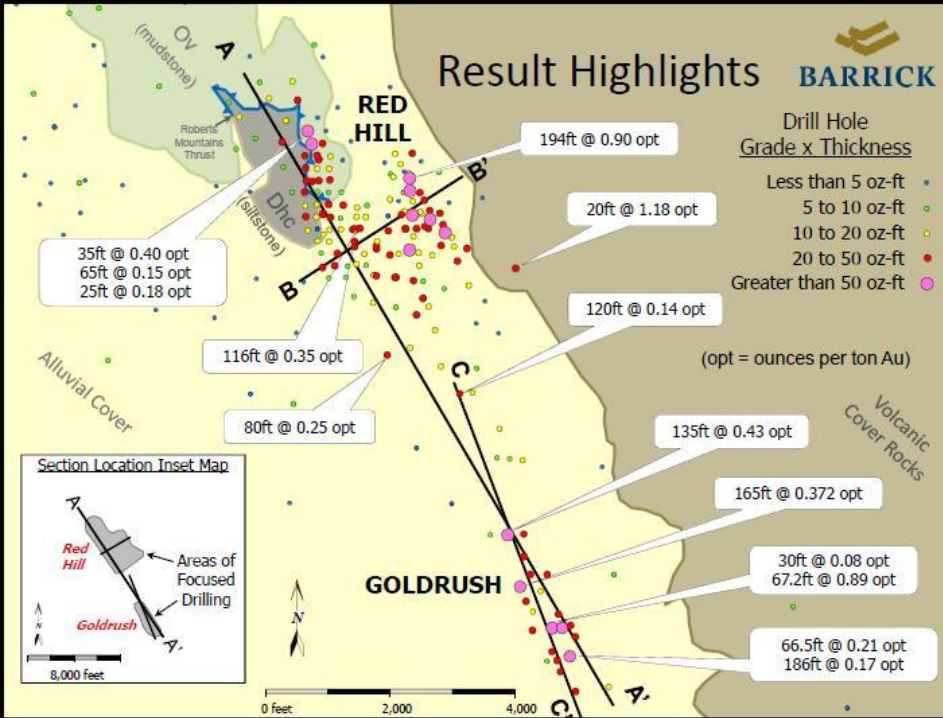
RED HILL / GOLDRUSH

Barrick Gold Corporation

Red Hill / Goldrush Corridor



Oblique aerial photo looking to the northwest



RED HILL / GOLDRUSH

Barrick Gold Corporation

Goldrush / Red Hill Drill Core



- Example of replacement-style mineralization at Goldrush
- Discovery drill hole HCD09-01 intersected 67.2 ft grading 0.89 opt



- High grade gold from KB zone at Red Hill
- Drill hole RHD08-06 intersected 194 ft grading 0.90 opt Au

RED HILL / GOLDRUSH

Barrick Gold Corporation

Cortez - Continuous Organic Growth



- Large growth opportunity in well endowed Cortez Camp
- Strong and continuous Carlin-style mineralization
- Tabular mineralized horizon extends 4 miles from Red Hill to ET Blue
- +3.5 M oz inferred resource outlined at Red Hill and open in all directions
- Discovery at Goldrush, 6,000ft south of Red Hill and open in all directions
- Drilling to find extent of system as well as in-fill drilling to confirm continuity and grade
- Other significant opportunities throughout the Cortez camp continue to be advanced – Lower Zone, Hilltop, CTI, Buckhorn

SANDMAN – Humboldt Co.

Newmont Mining Corporation

www.newmont.com

Four deposits of low-sulfidation, quartz-adularia epithermal vein systems hosted in Tertiary volcanic rocks, primarily tuffs and breccias

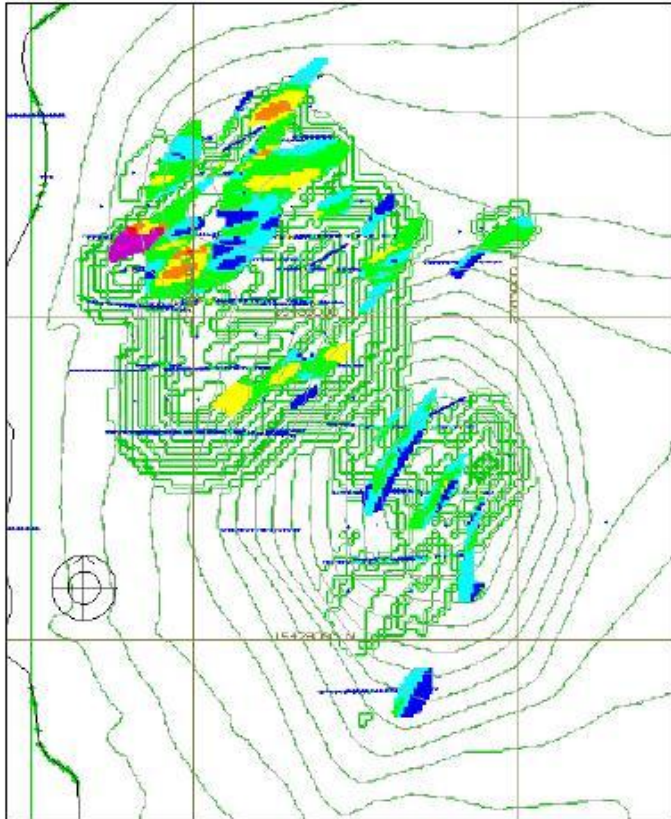


SANDMAN

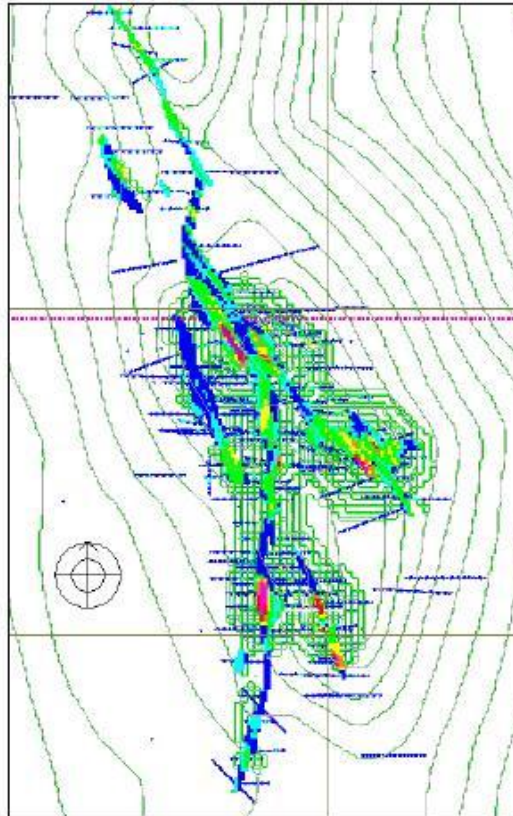
Newmont Mining Corporation

- Newmont acquired from Fronteer in 2011
- Column tests, waste rock characterization, geotechnical evaluations in progress?
- Property-wide exploration drilling program underway? (53 holes – 9,000 m in 2010)

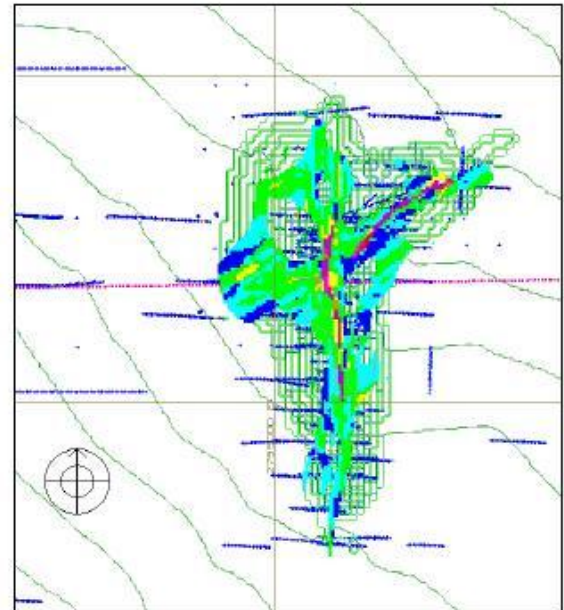
North Hill



Silica Ridge



Southeast Pediment



SPRING VALLEY Pershing Co.

Midway Gold (JV with Barrick)

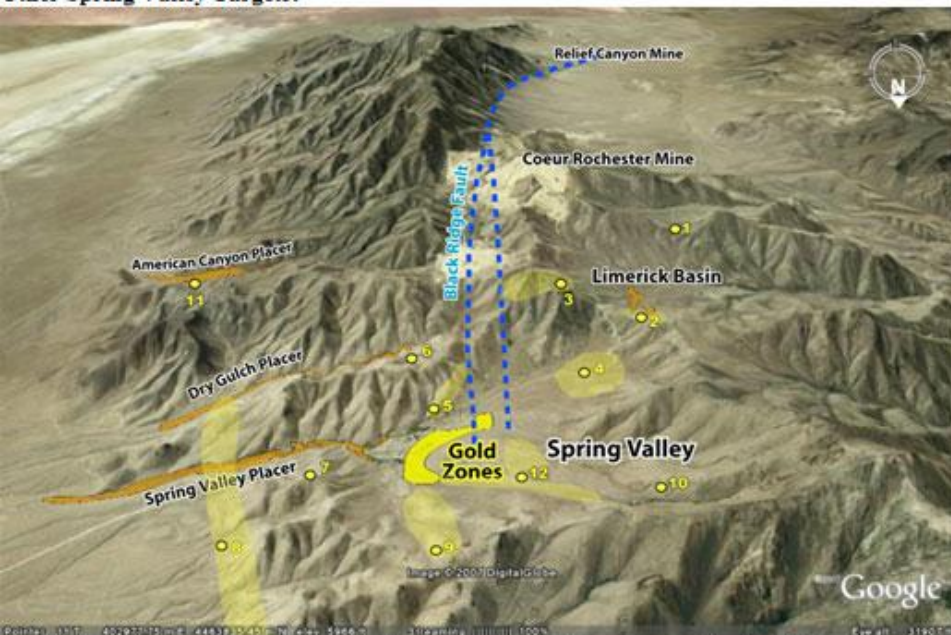
www.midwaygold.com

www.barrick.com

Porphyry/diatreme hosted gold system with significant amounts of coarse native gold



Other Spring Valley Targets:



1 - Golden Gate
2 - Limerick - Hagen
3 - Gold Mtn

4 - Spring Valley Pass
5 - King David
6 - Dry Gulch

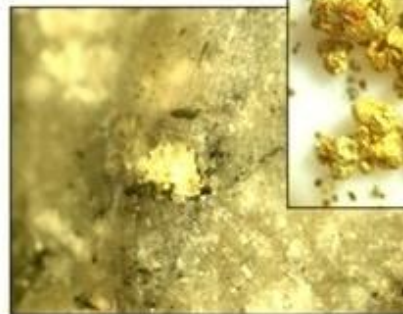
7 - New Pipe
8 - Fitting
9 - North Ridge

10 - North JL
11 - American Canyon
12 - Spring Valley West

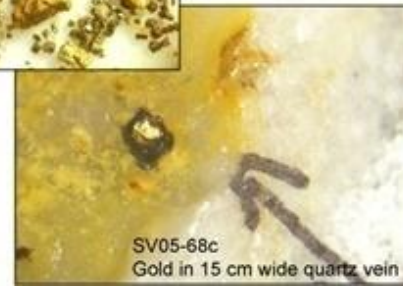


SV05-88
24 1mm gold grains in pan concentrate
from a 5 foot run of RC drilling:
Minimum grade = 3.4 g/t

SV05-74
Gold in RC cuttings



SV05-67c
Gold in 2mm wide quartz vein

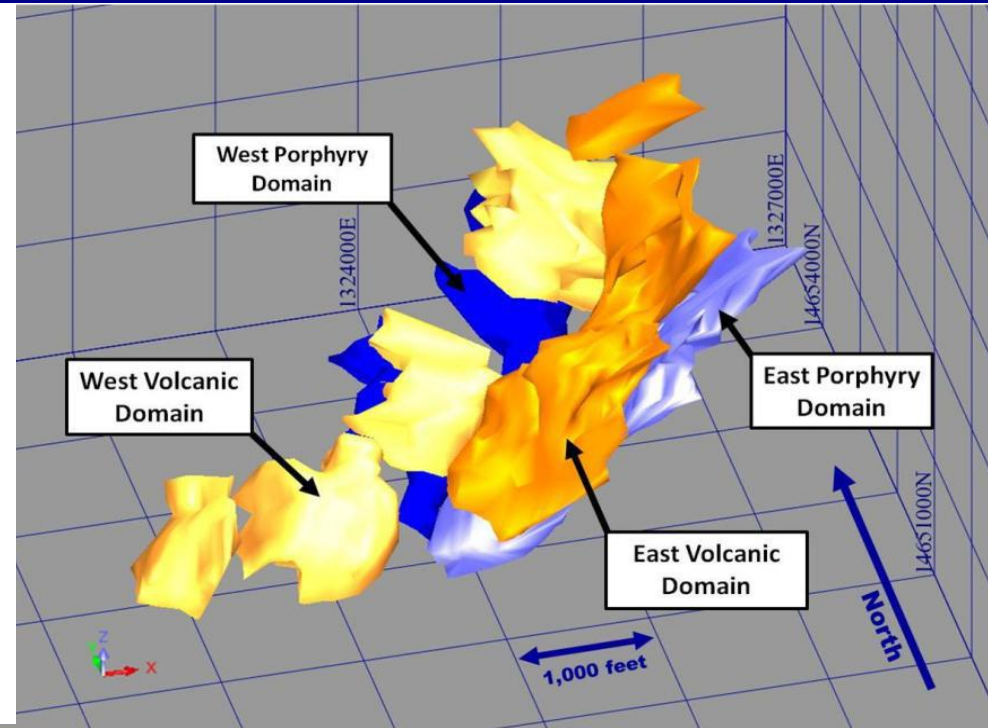
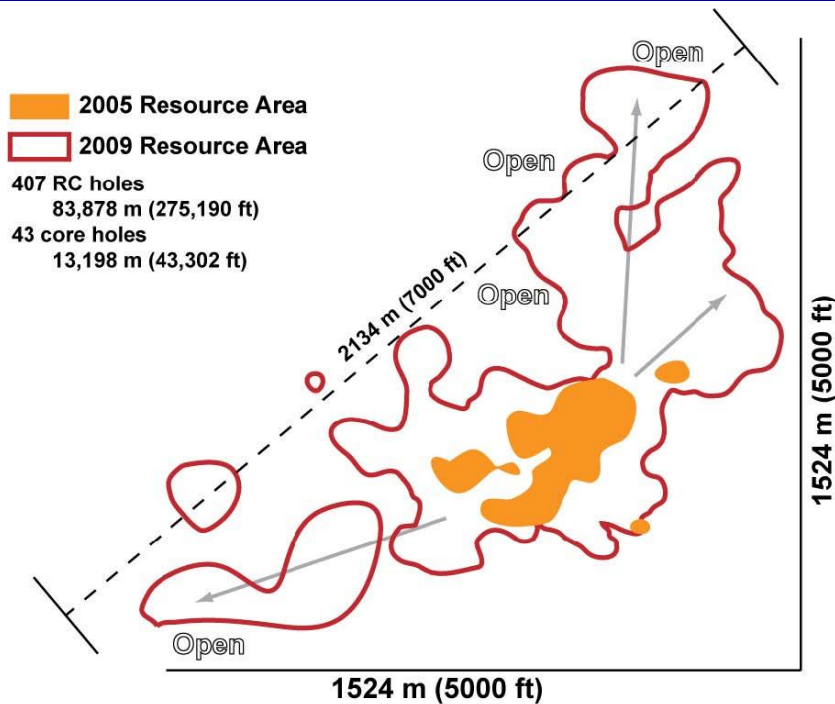


SV05-68c
Gold in 15 cm wide quartz vein

**Spring Valley
Coarse Gold**

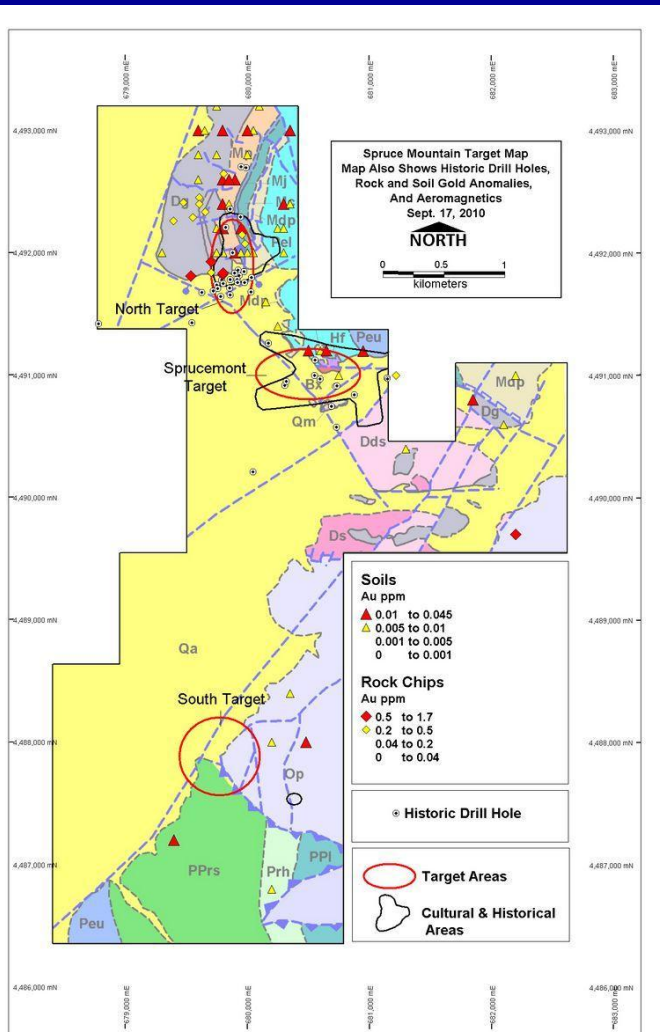
SPRING VALLEY

Midway Gold (JV with Barrick)



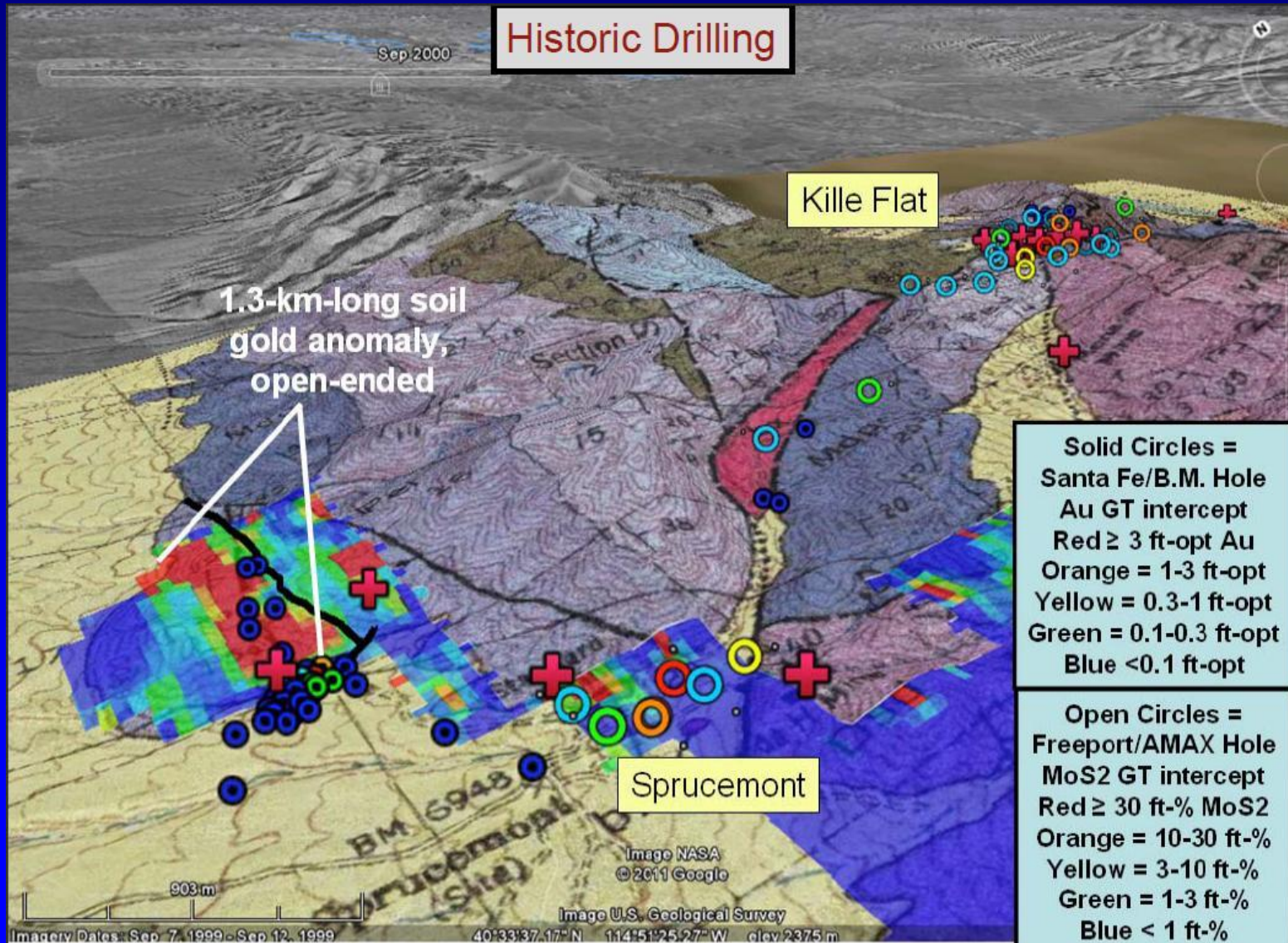
- May, 2011 resource estimate: 2.16 million oz gold measured and indicated and additional 1.97 million oz gold inferred
- Barrick continues to earn in (\$4M 2009, \$5M 2010, \$7M 2011) and must spend \$30M by 2013 to earn 60% interest

***Renaissance Gold* - www.rengold.com**



SPRUCE MOUNTAIN

Renaissance Gold



Spruce Mountain: Sprucemont and Kille Flat Areas

purple cross = Pb-Ag-Zn mine

SPRUCE MOUNTAIN

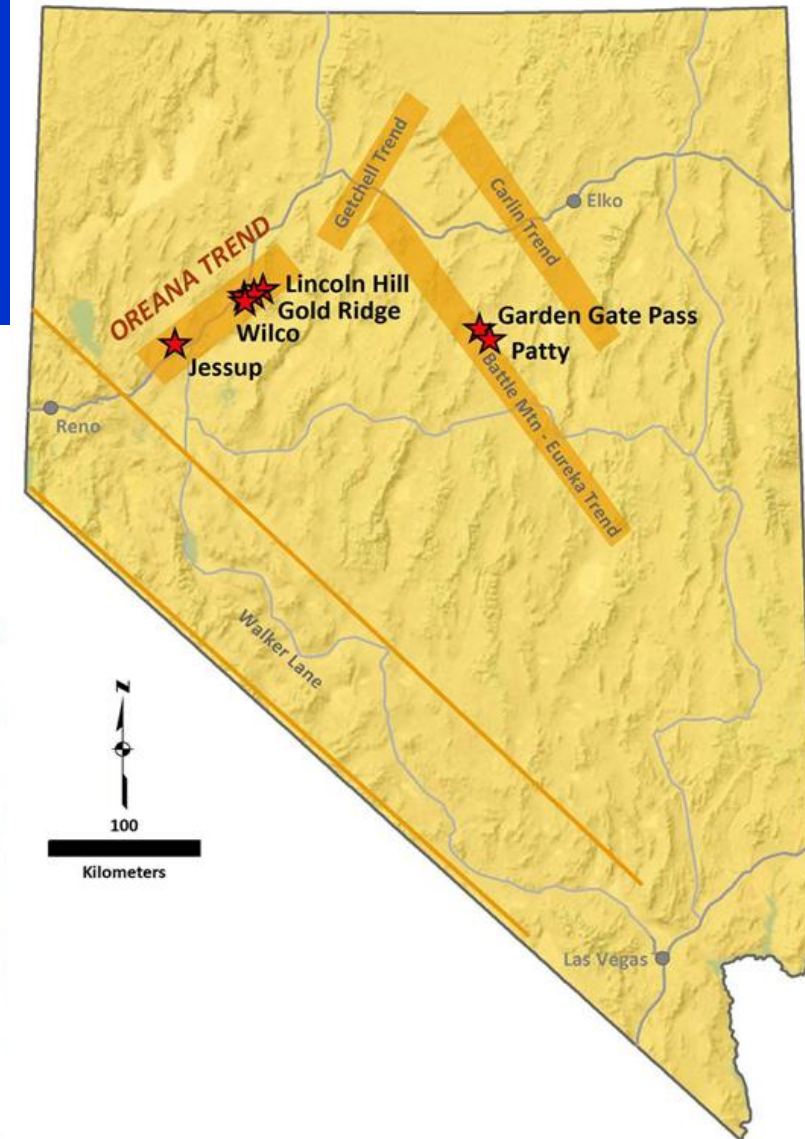
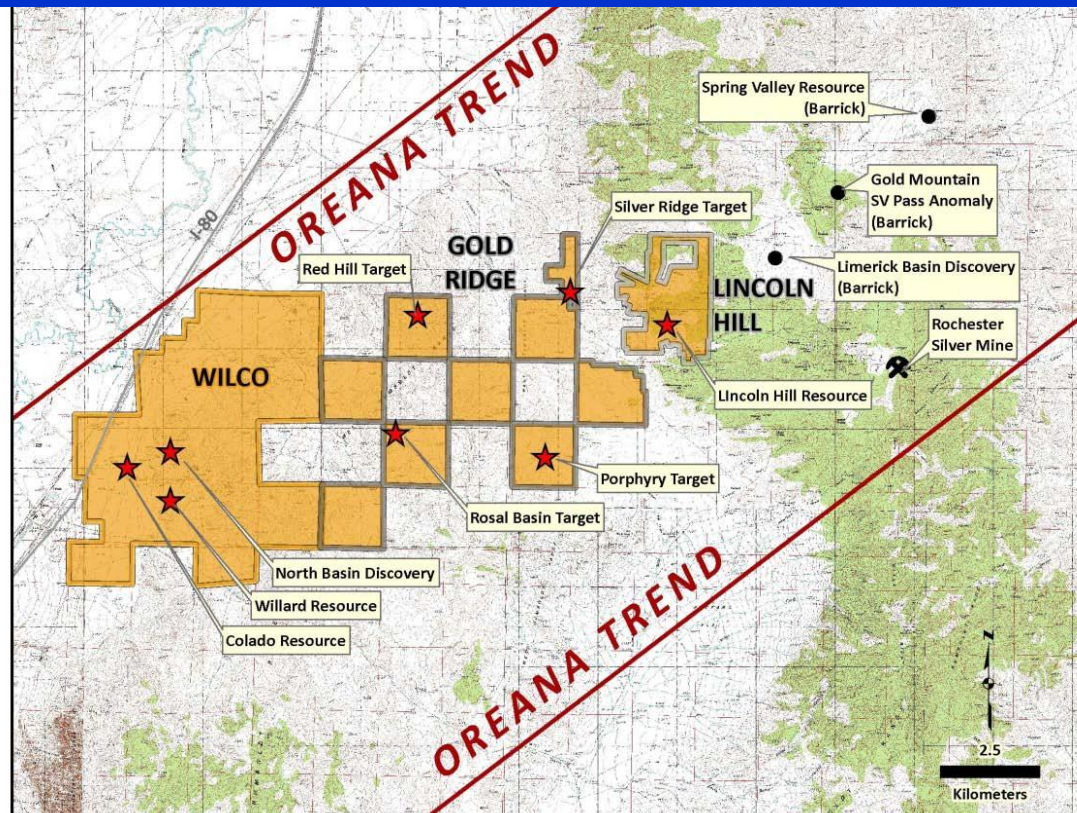
Renaissance Gold

- Renaissance Gold is a “spin-out” from the acquisition of AuEx by Fronteer
- Historical work by Newmont, Occidental, Freeport, Amax, Santa Fe Mining, Battle Mountain Gold, Teck Resources, and Nevada Pacific Gold
- Three gold target areas identified: North Target, Sprucemont, and South Target
- Recent funding agreement with Sumitomo

WILCO – Pershing Co.

Rye Patch Gold – www.ryepatchgold.com

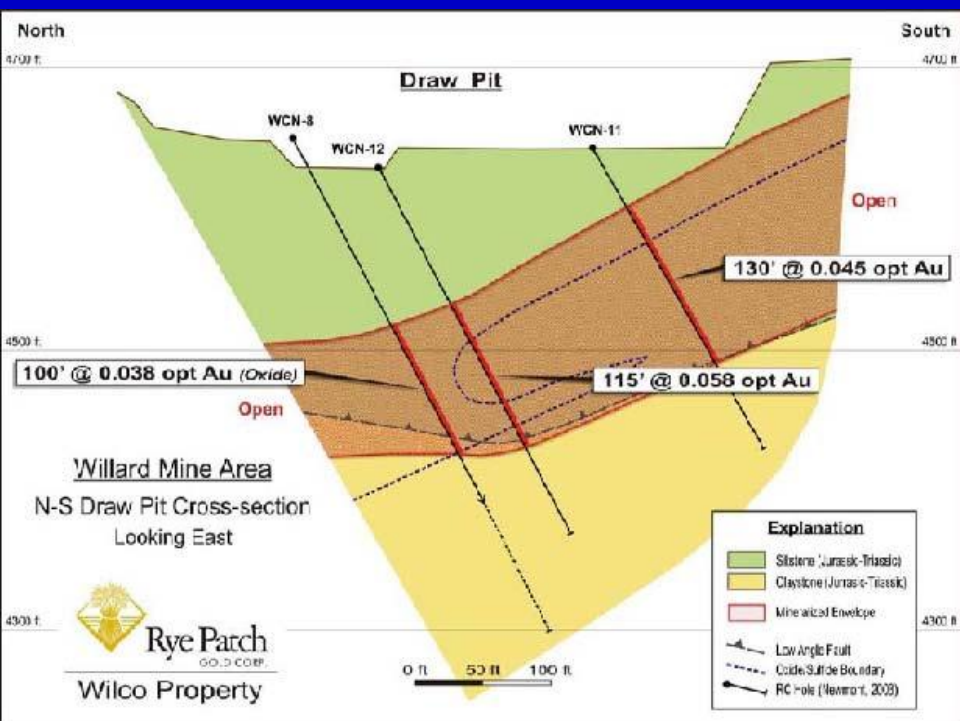
Epithermal, low-sulfidation (quartz adularia) type gold deposit at the contact between Tertiary volcanics and Mesozoic sediments

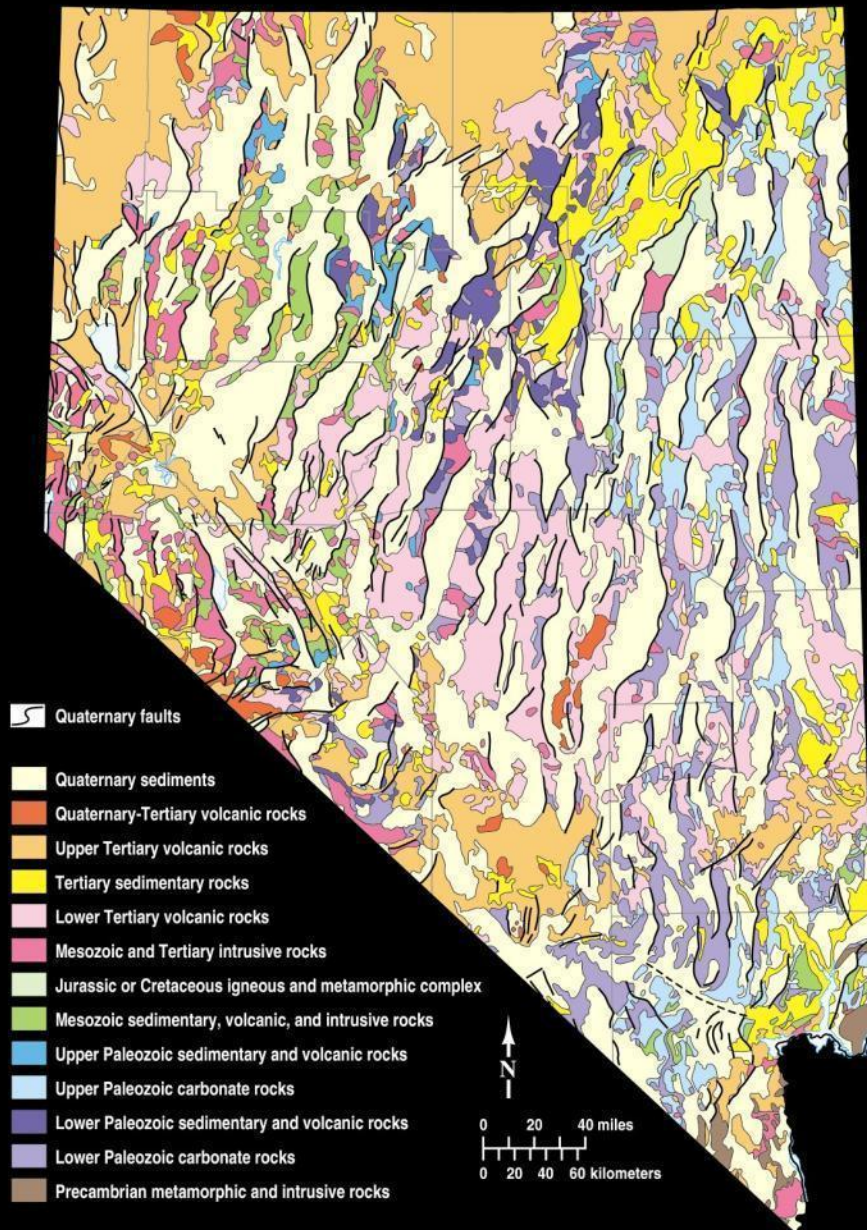


WILCO

Rye Patch Gold

- New oxide beneath the historic Willard Pit (Section Line discovery)
- M&I of 38 M tons with 686,000 oz Au and 4,750,000 oz Ag





Generalized Geologic Map of Nevada

Ten Top Reasons to Explore in Nevada

1. Great geology and mineral potential
2. Many large producing mines, including high-grade, underground mines
3. Mines operated by leading international companies

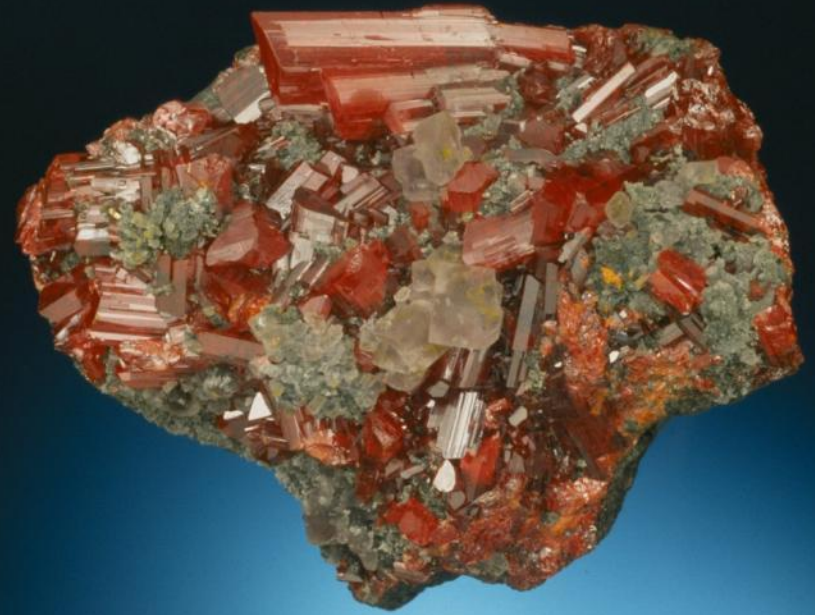


4. Regulatory system with recent examples of rapid permitting

5. Good infrastructure (roads, drillers, hotels supplies, assayers, etc.)

6. Large areas of public land open to exploration

7. Dry climate and year round access



8. Network of knowledgeable exploration geologists, organizations, and agencies

(Geological Society of Nevada, Nevada Mining Association, Nevada Mineral Exploration Coalition, Nevada Division of Minerals, Nevada Bureau of Mines & Geology, Ralph Roberts Center for Research in Economic Geology, and other units of the Mackay School of Earth Sciences and Engineering)

9. Recent discoveries and new mines

Ten Top Reasons to Explore in Nevada (continued)

10. No malaria,
black flies, moose,
polar bears, desert
death adders, or
crocodiles;
just elephants.



THE MAIN POINT

10 Year Gold

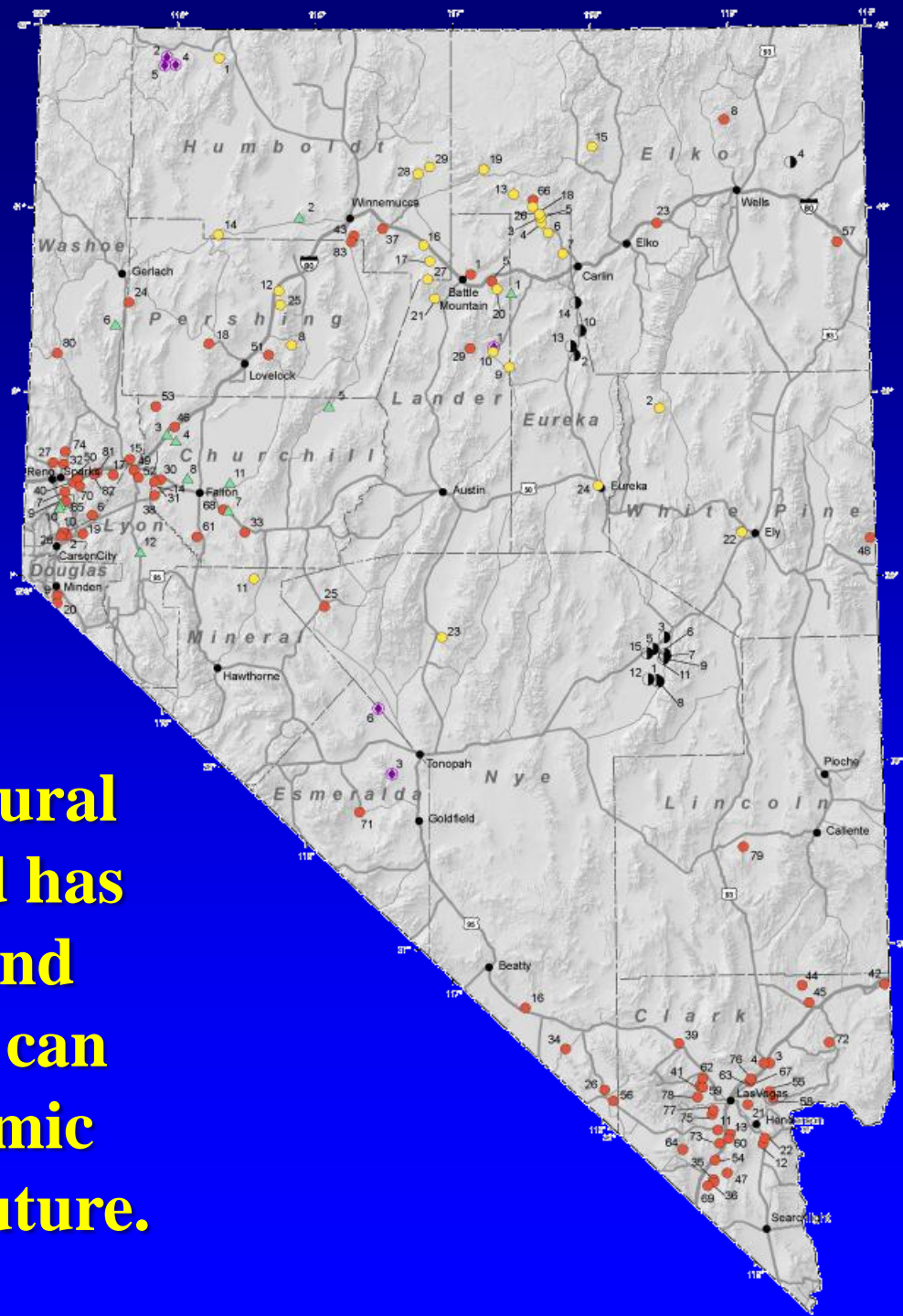
High 1900.30 Low 272.10



Based on New York Close



Nevada is a major natural resource producer and has significant mineral and energy resources that can provide strong economic development into the future.

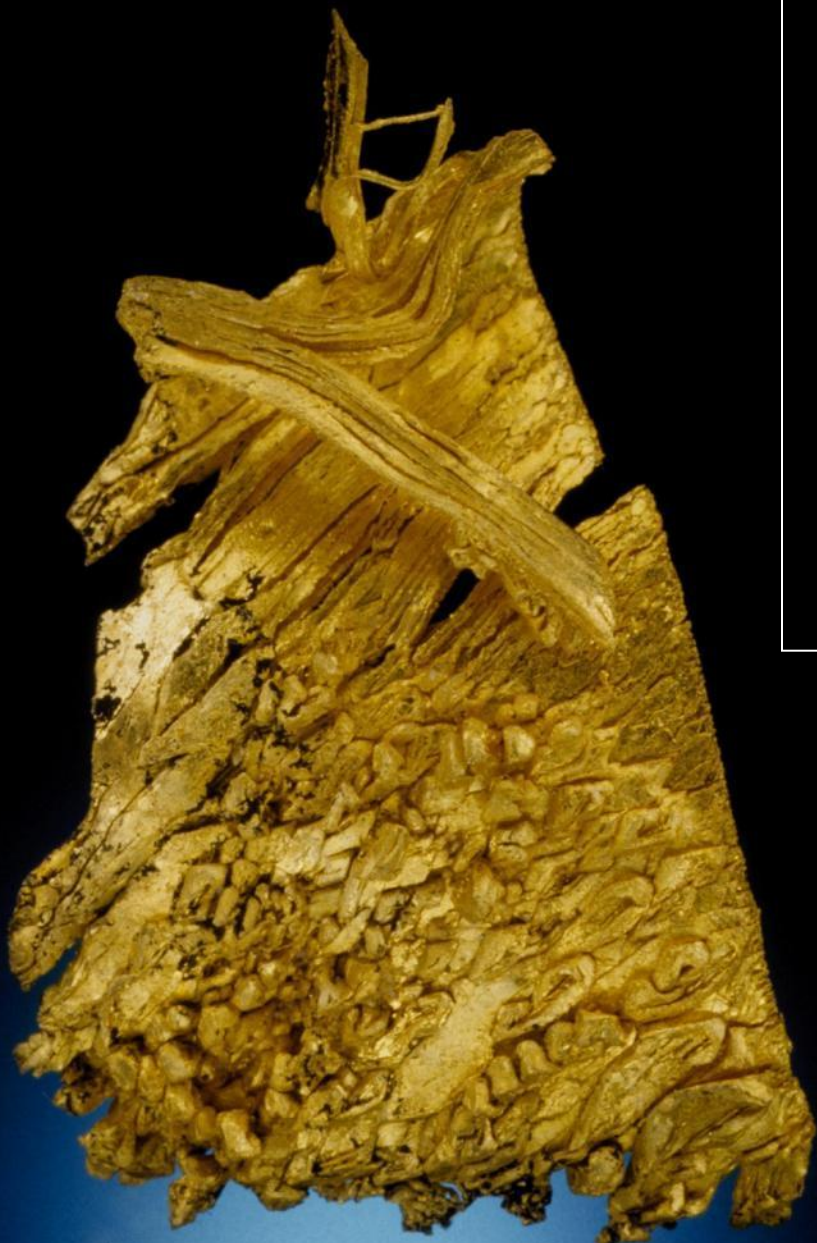


**THANK
YOU!**



**Round Mountain
55 pounds (802 troy oz)
@\$1,710/oz =
\$1.37 million**

05/18/2006

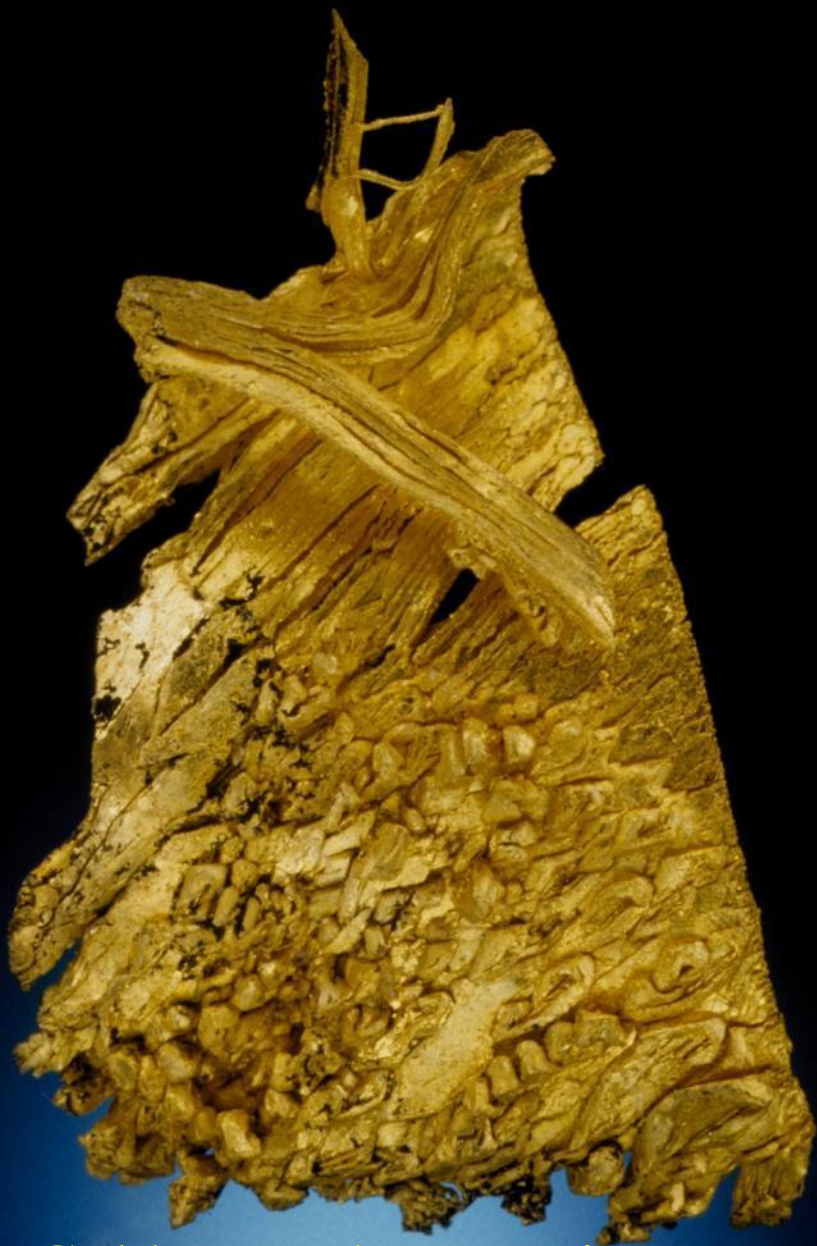


Gold, Round Mountain

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Opal, Virgin Valley



Gold, Round Mountain

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Opal, Virgin Valley