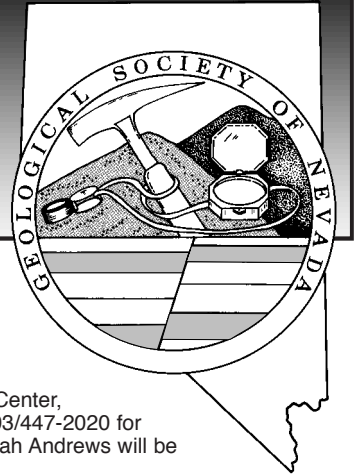


GSN NEWSLETTER



November 2000, Vol. 14, No. 9

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cami@mda.com

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Laura Ruud
gsn@mines.unr.edu

CALENDAR OF EVENTS

- Nov 12-15** GSA ANNUAL CONVENTION: Reno/Sparks Convention Center, Reno, Nevada. Contact the GSA office in Boulder, CO, 303/447-2020 for information. GSN will be in Booth #236. Guest author Sarah Andrews will be doing book signing and sales. Stop by and see us.
- Nov 16** GSN ELKO CHAPTER MEETING: Hi Desert Inn, Elko, Nevada at 7:00 pm. Speaker - Marcus Johnston, Newmont Mining Corp., New Age and Isotopic Data for the Cove Mine: Evidence for a Genetic Link Between Cove Base Metal and Carlin-Style Ores and the Adjacent McCoy Gold Skarn. Reservations not required. Call Keith Bettles, 775/778-8149 for information.
- Nov 17** GSN MEMBERSHIP MEETING: Elks Club, Reno, Nevada. Speaker - Nick Fox, Chief Geologist, AngloGold Ltd, South Africa, So What if the Witwatersrand Basin Isn't a Detrital Gold Deposit? Exploration Implications and Links to Other Hydrothermal Systems. Social-6:00, dinner-7:00 (\$17), talk-8:00. Details on page 3. Call Laura Ruud, 775/323-3500.
- Nov 30** GSN SOUTHERN NEVADA CHAPTER MEETING: Lily Fong Geoscience Bldg, UNLV, Las Vegas, Nevada. Speaker - Jim O'Donnell, Seismicity in and Around Las Vegas. Social-5:30 pm, dinner-6:30, talk-7:30. Call Chris Reiken, 702/435-7431 for information.
- Dec 6** GSN WINNEMUCCA CHAPTER MEETING: Red Lion Inn, Humboldt Room, Winnemucca, Nevada. Speaker - Mike Ressel, University of Nevada, Reno and Newmont Mining Corp., Why Eocene? A Perspective on Magmatism, Extension, and Ore Deposition in North-Central Nevada. 6:30 pm. Call Bruce Braginton, 775/625-5606 for information.
- Dec 13 (Wednesday)** GSN Christmas Membership Meeting, Elks Club, Reno, NV. Speaker - Sarah Andrews, Mystery writer/geologist, presents an evening of murder and mayhem in the mining industry. Call Laura Ruud, 775/323-3500.

GSN Newsletter is published monthly except June and July
Geological Society of Nevada, PO Box 12021, Reno, NV 89510-2021 USA, 775/323-3500

NEW PUBLICATIONS

SPECIAL PUBLICATION NO. 32

The GSN 2000 Fall Field Trip Guidebook Special Publication #32, Platinum Group Elements, High Grade Gold and History: The Sierra Nevada 2000, is now available. The volume contains 183 pages and 6 color plates and sells for \$25.00 plus shipping.

SYMPOSIUM PROCEEDINGS 2000

As announced in last month's newsletter, the GSN Symposium Proceedings Volumes are in and available for purchase at the GSN office. GEOLOGY AND ORE DEPOSITS 2000: The Great Basin and Beyond are available in both a 2-volume hardbound book set and as a CD-ROM. They include 72 papers and 90+ abstracts generated from the May, 2000 Symposium. The Proceedings contain 1,220 pages and the CD includes many of the figures in color. The 2-volume hardbound set sells for \$110.00 plus shipping and the CD-ROM version sells for \$50.00 plus shipping. Call Laura Ruud at the GSN office to place your order 775/323-3500 (or email her: gsn@mines.unr.edu) or visit the website: www.gsnv.org.

LAST NEWSLETTER!!

Warning!! If you have **NOT** renewed your membership dues for the current **2000/2001** year, then this will be your **LAST** newsletter! Check the back page of this newsletter. If there is a 9/01 after your name, you are paid up through 9/01. If there is a 9/00 (or nothing), your membership dues are **DUE NOW**. For those e-mail recipients of the newsletter who can't check the back page for a label (since there isn't one!), you will receive a message via e-mail if you need to renew. We don't want to lose any of you so please get your dues in this month. **THANKS!**

November Sponsor



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News and Announcements

GOLD PAGES

Gregory McN. French, GSN Membership Chair

Preparations have begun on the 2000-2001 Geological Society of Nevada Membership Directory. It is now time to submit advertisements for the GSN Membership Directory "GOLD PAGES," which are due for distribution in January 2001. This is an excellent advertising venue, as the GSN Membership Directory is used as the source for service companies and geologists throughout the West. More than thirteen hundred copies of the directory were distributed last year to the geoscience community throughout the state, nationally and internationally.

In addition to the standard "GOLD PAGES" we have four "premium" full-page ad venues, they are the inside front cover, opposite inside back cover, inside back cover and outside back cover. Advertising details are found on page 4.

Advertisement locations will be assigned on a first-come basis. The first complete advertisement and payment for a requested location, received at the GSN office, will be assigned that location. If you are submitting an advertisement for one of the four "premium" locations, please make sure to specify the first four preferred locations. Make payment for the highest priced advertisement on your preference list. If you do not receive the location, GSN will issue a refund for the difference.

As an added incentive, all "Gold Page" advertisers, from business card to full page ads, will receive a substantial discount on fees for our **up-coming Services - Advertiser Web Page**. The web page will feature e-mail and or web page links to service companies and geologists.

Please feel free to contact the GSN Office Manager, Laura Ruud (775/323-3500), or Greg French (775/856-2422) should you have questions (see advertising form on page 4). Requests for advertising space **must** be received by **December 18, 2000**.

THE GSN PICNIC WAS FUN FOR ALL

The GSN's annual Family Picnic was well attended this year and fun was had by all. There were only six children competing in the games but the adults joined in to give them some competition in the sack race and three-legged race. The winners in the adult games this year were **Rene Von Boeck** in the Gold Pan Toss and **Alan Coyner** in the Rock Hammer Throw. The winners of the always-fun Egg Toss competition were **Elizabeth Zbinden** and **Holly Callaghan**. Thanks go out to **Liz Jones Crafford** for organizing the games and supplying the grilled salmon, **Steve Castor**, our illustrious chef, and **Dave Shaddrick** for rounding up all of the drinks and snacks.



Yuk, BOYS !!!



Tom Callicrate, in the gold pan toss.

John Bernt and Pam Klessig, enjoying the picnic



Thanks to Eklund Drilling Co. Inc. for hosting the October Meeting

GSN November 17, 2000 Membership Meeting

Date: Friday, November 17, 2000

Time: Social-6:00, Dinner-7:00, Meeting-8:00

Cost: \$17.00 (dinner)

Reservations: phn 775/323-3500; fax 323-3599 or e-mail:
gsn@mines.unr.edu

Deadline: Reserve by noon Wednesday, November 15

Location: Elks Lodge, 597 Kumle Lane, Reno, Nevada

Directions: Across (W) from the Reno-Sparks Convention Center
(S Virginia St), just behind the Les Schwab Tire Center

Speakers/topic: Nick Fox, AngloGold Ltd, South Africa, So what if
the Witwatersrand Basin isn't a detrital gold deposit? Exploration
implications & links to other hydrothermal systems. Abstract below.

SO WHAT IF THE WITWATERSRAND BASIN ISN'T A DETRITAL GOLD DEPOSIT? EXPLORATION IMPLICATIONS AND LINKS TO OTHER HYDROTHERMAL SYSTEMS

Nick Fox, Chief Geologist, AngloGold Ltd, South Africa

AngloGold Ltd is the world's largest gold producer, with much of its production coming from the enormously well endowed Witwatersrand Basin. Other operations include Cripple Creek in Colorado, Jerritt Canyon (70%) in Nevada, Cuiaba, Morro Vehlo, and Serra Grande (50%) in Brazil. Serra Vanguardia in Argentina, Sadiola (50%), Yatela (50%), and Morila (50%) in Mali, Geita (50%) in Tanzania, Navachab in Namibia and Sunrise Dam, Boddington (34.4%), Tanami (50%) and Union Reefs in Australia.

The Witwatersrand is part of a relatively undeformed, late Archaean 'greenstone' belt, and probably owes many of its characteristics to deposition on thick, stable continental crust. The majority of the micro- to macroscopic characteristics support the concentration of gold within the mineralized units by purely hydrothermal means. If this is accepted, what fluids are implicated, and what geodynamic setting could have favored the creation of such an unusually extensive and continuous gold system?

This talk reviews some of the evidence for a hydrothermal origin within the generic framework of the development of a geological model for these gold deposits using the Vaal River ore body as an example. The discussion then considers some implications for hydrothermal systems in other, perhaps related, metal systems, and for other epochs.

THE GSN FALL FIELD TRIP 2000

Dave Shaddrick, GSN Vice President & Field Trip Chairman



A happy group poses with "The Whopper" after the underground tour at 16 to 1 Mine.



Rich Schweickert presentation.

The Geological Society of Nevada Fall Field Trip entitled **Platinum Group Elements, High Grade Gold and History: The Sierra Nevada 2000**, took place on September 30 and October 1, 2000. The weather was beautiful and the group was wonderfully convivial.

Traveling on the "**GEOTEMPS bus**", we visited the Emigrant Gap mafic/ultramafic complex, the Washington Hill overlook along Highway 20, the Empire Mine State Historic Park (sponsored by **American Assay**), and the Indian Springs Vineyards tasting room on day one. Day two included an underground tour of the 16 to 1 Mine at Alleghany and a number of excellent exposures of the Northern Sierra Terrane, the Melones fault zone and the Shoo Fly complex.

The trip benefited greatly from the expertise of the geologists who gave presentations and tours. Thanks to **Tom Callicrate, Dave Mough, Rich Schweickert, Mark Payne and Ray Wittkopp**. Special thanks to **Michael Miller** for authorizing the 16 to 1 tour, helping to guide it and allowing everyone to be photographed with "The Whopper," their 141ounce gold nugget in a 13 pound quartz matrix.

Continued on page 4

FALL FIELD TRIP (continued)



Cami Prenn quenches her thirst from the GEOTEMPS bus.

Joe Tingley goes for the green (he spots a \$20 bill on the ground), but Elizabeth Zbinden goes for the gold at the 16 to 1 Mine.



As promised, there was a lighthearted, more genteel, aspect to the trip. This included a special treat of freshly ground and brewed coffee at Emigrant Gap (**Opal Adams**), coffee and sweets at the 16 to 1 Mine portal (**American Assay**), the refreshments on the bus (**ALS Chemex**), lunches of Cornish Pasties on day one and assorted sandwiches on day two (**Bondar Clegg**) and a wine tasting organized by **Ken Cunningham**.

The first day ended with a lively social hour (**Eklund Drilling**) and an excellent prime rib dinner (**Lang Exploratory Drilling and Boart Longyear**). A highlight of the evening was a drawing for donated door prizes including: golf balls, hats and a brand new set of the Symposium 2000 proceedings from **Bondar Clegg**; lapel pins, hats and a truly magnificent gold specimen (16 to 1 Mine) from **GSN**; a beautiful tourmaline (Minas Gerias) from **Mine Development Associates**; and a gold specimen (Harvard Mine) from **Ross Grunwald**.

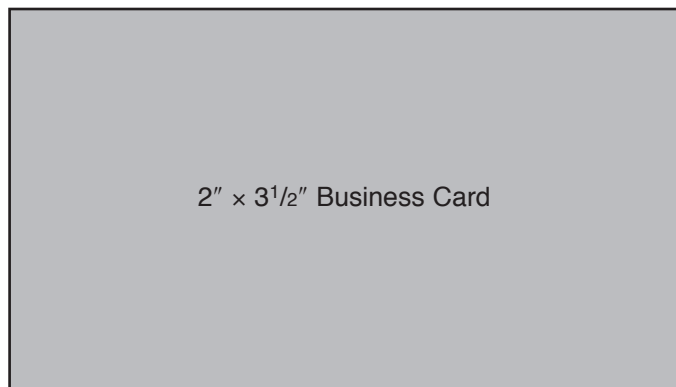
The trip home was comfortable (no one got sick), the jokes were good and we got in on time. It was a great time. Thank you to everyone involved.

Geological Society of Nevada Membership Directory Advertising

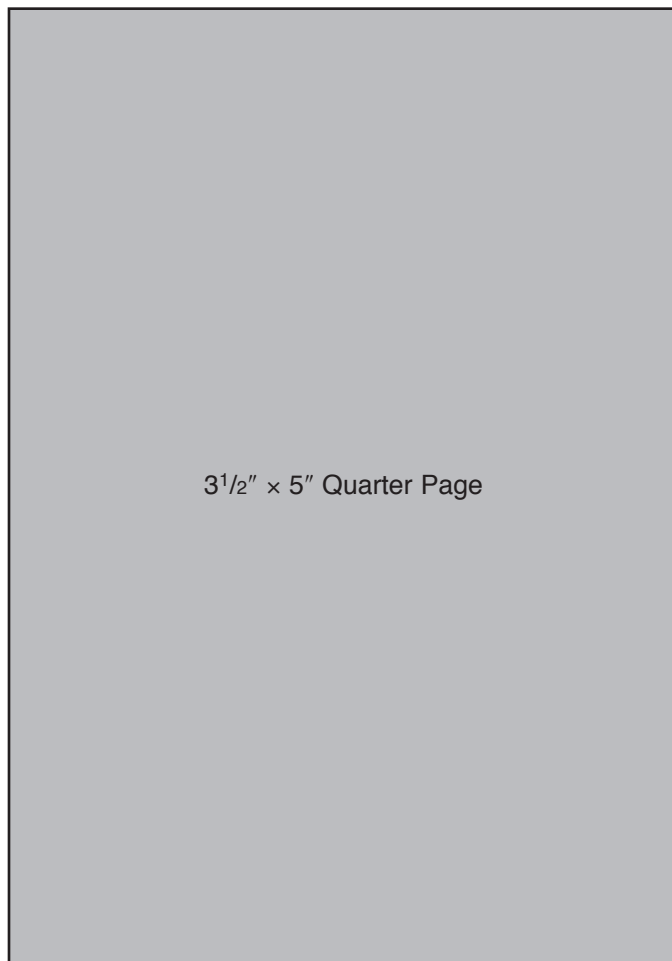
Advertise your business, products, or services in the 2000-2001 GSN Membership Directory "Gold Pages" due for distribution in January 2001. A complimentary copy of the directory will be provided to you.

The following advertising space sizes are available:

2" x 3 1/2"	Business Card - Horizontal	\$ 50.00
3 1/2" x 5"	Quarter Page - Vertical	150.00
5" x 7"	Half Page - Horizontal	200.00
3 1/2" x 10"	Half Page - Vertical	200.00
7" x 10"	Full Page - Vertical	400.00
7" x 10"	Inside Front Cover - Vertical	750.00
7" x 10"	Opposite, Inside Back Cover - Vertical	550.00
7" x 10"	Inside Back Cover - Vertical	650.00
7" x 10"	Outside Back Cover - Vertical	850.00



2" x 3 1/2" Business Card



3 1/2" x 5" Quarter Page

All advertisements must be camera ready, black and white or submitted as EPS, TIFF, or PICT digital format on 3.5" floppy diskettes (ZIP or JAZZ disks can also be used and will be returned to advertiser). Please send your advertisement and check (payable to Geological Society of Nevada) by December 18, 2000 to: **Geological Society of Nevada, P.O. Box 12021, Reno Nevada 89510-2021.**



**NWMA 106th
Annual Meeting
& Exposition**

Dec. 4 - 8, 2000

Doubletree Hotel —
Spokane City Center,
Spokane Convention Center
& Agricultural Trade
Center, Spokane,
Washington, U.S.A.

The North American mining industry is undergoing significant change. Mergers, acquisitions, consolidations, politics and attitudes toward mining are impacting where the new mines of tomorrow will be located. NWMA's 106th Annual Meeting promises to provide the understanding needed to take advantage of new approaches and future business opportunities, and to obtain in-depth information on the latest and most relevant geological, operational, environmental, financial and regulatory practices for the mining industry.

Winds of Change

- **Four Short Courses** dealing with: Metallurgy and Minerals Processing for Geologists to understand the specific nuances of a prospect during exploration and development; the Geology of the Republic Mining District of northern Washington; Cash Flow Models for Geologists and Engineers; and Career Development for transitional situations.
- **26 Technical Sessions** focusing on Mineral Deposits, Business and Finance, Operations, Public Affairs, the Environment and Geology and Exploration.
- **250 industry suppliers' exhibits** will show you hundreds of ways you can reduce costs and increase productivity and efficiency.
- **Hear leading industry policy makers** speak on the important issues of the day.

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**Lowell Chair in Economic Geology
University of Arizona**

The Department of Geosciences invites applications for the J. David Lowell Chair in Economic Geology, a tenure-eligible faculty position to be filled in 2001. We seek applicants interested in carrying out innovative teaching and research in the area of economic geology, including applied issues directly related to the discovery, development and production of mineral deposits. We are looking for individuals who approach broad-based applied issues from a geological perspective and who can combine academic and industrial interests. A requirement of the position is to develop and coordinate innovative graduate professional training programs related to mineral exploration and production. Excellence in basic or applied research related to mineral deposits is also expected. The level of appointment will be commensurate with qualifications. A Ph.D. or equivalent degree is required.

The Department of Geosciences is committed to sustained excellence in research and innovative teaching in economic geology both at the undergraduate and graduate levels. The selection process will begin December 15, 2000, and will continue until the position is filled. Interested applicants should submit a curriculum vitae, a statement of research, a statement of teaching interests (specifically addressing opportunities in professional education), and a list of at least three references (with addresses, e-mail, phone, and fax numbers) to: Chairman, Lowell Search Committee, Department of Geosciences, The University of Arizona, Gould-Simpson Building, 1040 E. Fourth Street, Tucson, AZ 85721, phone: (520)-621-6024, FAX: (520)-621-2672, chair@geo.arizona.edu. Please reference job number 19393.

The University of Arizona is an EEO/AA Employer - M/W/D/V

UP-COMING EVENTS

Nov 10 Society of Mining Engineer's Reno Chapter monthly business meeting and technical session, 12:00 noon at Reno, NV. No reservations required. Bill Clem, 775/677-9546

Nov 10-11 SEG Short Course, Gold in 2000 at Lake Tahoe, NV. 720/981-7882, seg@segweb.org, www.segweb.org

Nov 12 Dr. Jim Skehan, Boston College, Lecture on Creationism and Science in our Schools, 10:30 am, Swope Middle School at Reno, NV. Richard Bedell, rbedell@homestake.com

Nov 12-15 GSA Annual Conv at Reno/Sparks Conv Center, Reno, NV. Contact the GSA office in Boulder, CO, 303/447-2020 for information. GSN will be in Booth #236, so stop to see us. Author Sarah Andrews will have her novels for sale and will do book signings throughout the conv

Nov 13-15 Randol at Vancouver-Global Mining Opportunities, Robson Square Conf Centre at Vancouver, BC. 303/526-1626, www.randol.com

Nov 16 GSN Elko Chapter Meeting at Elko, NV. Marcus Johnston, New Age and Isotopic Data for the Cove Mine: Evidence for a Genetic Link Between Cove Base Metal and Carlin-Style Ores and the Adjacent McCoy Gold Skarn. Reservations not required. Keith Bettles, 775/778-8149

Nov 16-18 Manitoba Mining & Minerals Conv 2000 at Winnipeg, Manitoba, Canada. 1-800/223-5215

Nov 17 GSN Membership Meeting at Reno, NV. Nick Fox, AngloGold, So what if the Witwatersrand Basin isn't a detrital gold deposit? Exploration implications and links to other hydrothermal systems. 775/323-3500

Nov 17-18 GSA/SEG Short Course on GIS at Reno, NV. Register through GSA, www.geosociety.org/meetings/2000/t-course.htm

Nov 28-30 Conf on Mercury in Mining at San Francisco, CA. 513/569-7844

Nov 30 GSN SNC Meeting at Las Vegas, NV. Jim O'Donnell, Seismicity in and Around Las Vegas. Social-5:30 pm, dinner-6:30, talk-7:30. Chris Reiken, 702/435-7431

Dec 4-8 NWMA Annual Meeting & Expo in Spokane, WA. Pat Bronchetti, 509/624-1158, www.nwma.org

Dec 13 (Wednesday) GSN Christmas Membership Meeting at Reno, NV. Sarah Andrews, author of mining oriented mystery books. 775/323-3500 or gsn@mines.unr.edu

Dec 16 Society of Mining Engineers Reno Chapter Annual Christmas Party in Reno, NV. Bill Clem, 775/677-9546

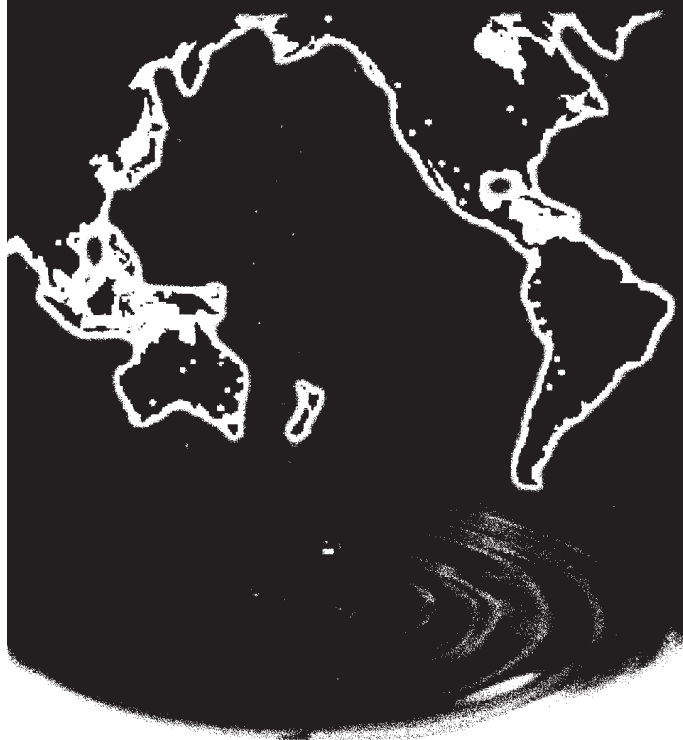
David W. Blake (1937-2000)

David Blake passed away unexpectedly on 13th September, 2000 at his home after a long, hot day of fieldwork south of Battle Mountain, Nevada. His close friends were shocked and saddened to hear that Dave was gone at the young age of 63, after an active career of field geology that began in the mid-1960s. Dave received his Bachelor's Degree from Oregon State in 1962 and completed a Master's Degree from the University of Arizona in 1967. His long career in private industry began in 1967 as a staff geologist for the Duval Corporation (later Battle Mountain Gold) in Battle Mountain, Nevada. He was responsible for the geology of the operating mines and initiating new exploration programs. In recent years he worked as a consultant to several major and junior mining and exploration companies.

At Duval, he assembled a very good geologic staff and they applied very innovative programs that employed up-to-date methods in geochemistry, structural geology, and hydrothermal alteration studies to document known mineralization and to explore new areas in the district. When Duval's management decided they wanted a gold deposit, his team responded with the discovery of the Tomboy-Minnie deposit and subsequently with the world-class Fortitude deposit. Dave was a true student of geology and ore deposits and a well-read explorationist who never lost his love for fieldwork and working out complex geologic problems. This interest led to a collaborative research association with Ted Theodore (USGS) that resulted in a series of Professional Papers and other published papers detailing the geology and geochemistry of major ore deposits in the Battle Mountain mining district. The exploration community has lost one of its distinguished members who made a significant contribution to the science of economic geology in Nevada and he will surely be missed.

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