



MINING FOUNDATION OF THE SOUTHWEST

PO Box 42317 , TUCSON, AZ 85733

520-577-7519 (office), 520-577-7073 (fax)

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www.miningfoundationsw.org

admin@miningfoundationsw.org

CONCENTRATES

At the recent annual meeting held at Mintec Headquarters in Tucson, AZ, members present elected the new officers for 2014.



Mark Baker—President Baker received his BSEE from the University of Arizona and was a founding director of Modular Mining Systems Inc. He was instrumental in the acquisition of Modular by Komatsu and directed the initial development and deployment of Komatsu's Autonomous Haulage System. Baker served on the KMS board until 2004 when he left to start CheckMark Consulting Inc. He has obtained four US patents related to mining technology, is a current member of MGE Industrial Leadership board at the University of Arizona, was a past Chair for the Arizona Conference of the SME and served as a director of the NanoSteel Company.

A. John Broderick - Vice President & Hall of Fame Chair Broderick received his BS in Metallurgical Engineering from the University of Arizona and has nearly 40 years of experience in the mining industry with both Phelps Dodge and Freeport McMoRan Copper and Gold. Broderick worked as a metallurgist in smelters at Hidalgo, NM, Ajo and Morenci AZ. At Morenci, he was on the team that constructed and commissioned the first SXEW plants and as hydrometallurgical manager oversaw three additional expansions of the facilities. Broderick has held the site leadership role at Tyrone NM, Bagdad AZ, the Candelaria mine in northern Chile, and the Cerro Verde operation in Peru. He is currently the Vice President and General Manager of the Sierrita mine in Green Valley AZ.



Eben Robinson - Treasurer Robinson received his Mining Engineering degree from the University of Arizona and has worked for Asarco Silverbell, IMC/Mosaic Potash Carlsbad, Phelps Dodge/Freeport-McMoRan, and Marco Crane. He has been with Southwest Energy for four years where he is Innovation Manager working on new technologies to insure that every hole drilled gets loaded, and every hole loaded fires properly. He also works on other Continuous Improvement projects for Southwest Energy and provides ongoing support at the mines for electronic detonators, seismographs, and general blast consulting.

Scott M. Shields – Secretary Shields is a fifth generation Arizona Miner and earned his BS in Mining Engineering from the University of Arizona. He has been working in the industry for the past 19 Years and has held positions ranging from Sr. Mine Surveyor, Sr. Research Technician, Plant Supervisor, Site Coordinator, Industry Liason, and Applications Engineering Manager and has also earned notable recognition for safety, quality and championing next generation technologies. Shields is currently the Manager of Mining Application Engineering at Joy Global.



OTHER BOARD OF GOVERNORS NEWS

The following members were elected to serve as Board of Governors for term 2014 - 2017:

Corolla K. Hoag Douglas C. J. Austin Eben Robinson James Wm. White
John Fenn Scott Shields Terry McNulty Tom Aldrich William H. Wilkinson

COMMITTEES

Committee chairs would like to enlist broader participation and anyone interested in joining the committees listed below should contact the chairs directly:

Audit & Finance Committee chaired by Ron Roman 520-749-0474 ronroman@leachinc.net
Foresight Committee chaired by Don Earnest 520-906-8999 dearnest@att.net

NEW MEMBERS

Tom L. Aldrich — Aldrich received his BS in Metallurgical Engineering from South Dakota School of Mines and Technology and has 24 years experience in environmental matters and 14 years in the operation of smelters. He serves on various advisory boards and has been with ASARCO for 38 years currently as Vice President of Environmental Affairs. His present responsibilities include all environmental matters for Asarco’s operations in Arizona and Texas as well as being responsible for the Asarco’s non-core assets, lobbying activities, press liaison and community involvement. Aldrich has graciously agreed to serve as Board of Governor replacing Susan Wick for the remainder of her term.

John Fenn — Fenn received his BS in Mining Engineering from the University of Arizona and has worked for various national and international mining companies both in the US and abroad including ASARCO, Freeport McMoRan Copper & Gold Inc., Sociedad Contractual Mineral El Abra, Phelps Dodge Mining Company and Climax Molybdenum Company. Fenn was an Adjunct Professor and plays a crucial role in many mining related associations. He was Division President, South Africa for Freeport McMoRan when he left to form Fenn Consulting LLC in 2008. Fenn was elected to be a member of the MFSW Board of Governors with term expiring in 2017 at the recent MFSW annual meeting.

J. Theodore Winkelmann — Winkelmann received his BS in Metallurgical Engineering from Montana Tech and recently earned his MBA. Since graduation from Montana Tech, he has been working for Mercator Minerals Ltd. near Kingman, AZ and specializes in grinding and flotation of molybdenum of sulfide ores. During his short tenure as a mine engineer, Winkelmann has gained valuable experiences in several plant trials and is grateful for the guidance afforded him by the many mentors in the mining industries.

Eben Robinson— Robinson was elected as Treasurer of MFSW in the recent annual meeting and his brief biography is featured on the front page.

OUTREACH CORNER by Pam Wilkinson

MFSW Outreach Coordinator Activities: January 2014 -March 2014

School visits from mid-January to mid-March continue to be vigorous with over 1800 students and 20 teachers participating at 13 schools in classroom presentations and activities. I have begun to collect data from the students before most presentations. The following is the true/false test I ask them to take:

1. Building a house requires rocks and minerals. (Housing)
2. Cell phones are made out of rocks and minerals (Communication)
3. Cars are made out of rocks and minerals. (Transportation)
4. Light bulbs are made out of rocks and minerals. (Lighting)
5. A refrigerator is made out of rocks and minerals. (Food)
6. Sewing machines are made out of rocks and minerals. (Clothing)
7. Toothpaste is made out of rocks and minerals (Health)
8. Motorcycle helmets are made out of rocks and minerals. (Safety)

Once they have completed the test I point out the number of mines in operation to produce the materials needed for each of the items. I prefer to talk in terms of mines rather than in terms of rocks and minerals. I also point out that all of the mines are not located here in Arizona or the United States, for that matter. The response to this is very interesting; most of them come away with an improved attitude toward places called mines. One of my favorite comments from a student last week was, "Without mining, we would die!" Now if we could just get more people to feel the way this young man does, it might be easier to get mines permitted. At the end of this semester I will tally the results of all the tests and I think we will see that there is a need for continued education to help people understand how vital mining is to humanity.

John Mastor (SME member, Maricopa Section) assisted me at the Payne Junior High Science Night. We did the modified bird seed activity. A display of rocks and minerals mined in Arizona helped both parents and students learn more about mining. Over 75 people participated in our part of the event. It is very helpful for me to have assistants during events such as this. Thank you John!



OUTREACH CORNER cont.

Jane Jackson, Co-Director, Modeling Instruction Program at Arizona State University has an extensive list serve of science teachers in the state of Arizona. She has built this over the past 19 years and she recently disseminated my information on her list-serve with an endorsement. *“Pam Wilkinson is a dynamic and articulate educator: she is passionate about geology and about Arizona. I think students would enjoy her activities and her stories, and connect her work with their lives, to enhance their appreciation of our physical world.”* -- Jane Jackson. Since the circulation, my inbox has been flooded with requests for presentations and my semester is now almost completely booked. In some cases I have had to request that teachers schedule me for next year.

In Safford I provided an in-service training event for 12 middle and high school teachers. Unfortunately not as many teachers attended as I had hoped. As expected, it is a challenge to get middle and especially high school teachers to attend this type of event when it is offered after school.

Thank you to all the members of the MFSW for supporting this outreach effort.



School	City	Students	Teachers	Date
San Luis HS	San Luis	89	1	1/22/2014
Gila Ridge HS	Yuma	30	1	1/22/2014
Woodard Jr Hi	Yuma	105	1	1/23/2014
Western Peaks El-em.	Surprise	90	1	1/27/2014
Centennial MS	Ahwatukee	115	1	1/20/2014
Granite Mtn. MS	Prescott	460	3	2/2-7/2014
Vail Academy and HS	Vail	70	3	2/10/2014
Emily Grey MS	Tucson	138	1	2/18/2014
Thatcher MS	Thatcher	112	1	2/20/2014
Centennial MS	Ahwatukee	216	2	3/5-6/2014
Walden Grove HS	Sahuarita	318	3	3/10-11/2014
Amphitheater MS	Tucson	33	1	3/12/2014
Tucson Magnet HS	Tucson	80	1	3/13/2014
Total		1856	20	

AFFILIATE NEWS

Boy Scout of America Launches Mining in Society Merit Badge

The Society for Mining, Metallurgy & Exploration Inc. (SME) was instrumental in the development of the Mining in Society Boy Scout of America's (BSA) merit badge and held a special launch event at its annual meeting recently in Salt Lake City. This newest BSA merit badge represents almost a decade of advocacy, became the mission of many SME members and industry leaders and aligns SME's commitment to foster understanding about the positive impact mining and minerals affect scouting activities and on the American quality of life. The SME Merit Badge Content Development Team and Advisory Panel worked in tandem with the Boy Scouts of America to create a fun, compelling badge program focused on science, technology, engineering and math (STEM) topics. "There are some important STEM lessons to be learned through earning this badge, and that focus may lead some Scouts to develop an even greater interest in the vastly important fields of science, technology, engineering and math," said Chief Scout Executive Wayne Brock.

UA Mining Chapter Wins Top Outreach Award

The UA student chapter of SME was honored by the Minerals Education Coalition for its K-12 Outreach at the annual meeting in Salt Lake City in February. Members of the mining student group volunteer their time to help elementary school students mine chocolate chips from cookies, to help girl scouts pan for golden beads and compete in fire extinguisher contests and to help boy scouts identify minerals found in toys, tools and homes. "We teach them that we need mining," said Danielle Taran, UA SME chapter president.

H.L. Boling Receives SME Health and Safety Award

H.L. Boling, who teaches mining safety courses at the University of Arizona, known worldwide as "Mr. Safety" was awarded SME's first Health and Safety Individual Excellence Award. Boling is a certified mine safety professional whose steadfast emphasis on zero incidents, zero production concerns, zero discipline matters and zero citations has earned him 83 personal awards and 178 certificates of merit.

**2014 MFSW MEMBERSHIP IS NOW PAST DUE.
RENEWAL FORM IS ATTACHED .**

PRESIDENT'S CORNER by Mark Baker

Moving Ahead....

We are continuing to move forward in a positive direction. This year's Hall of Fame Committee team, led by John Broderick is off to a good start. Our strategic planning initiative, moderated by Marian LaLonde has prompted a lot of discussion as we focus on enhancing our value proposition for both our industry and our members. The next date and location are being finalized.

With Cori Hoag's help, the MFSW is in the process of migrating its website to Wild Apricot. Wild Apricot is the most used membership management system on the web. It is accessible from any browser and provides the ability to manage member sign-up, renewals and event registrations.

I'd like to thank our outgoing President, Cori Hoag for her dedication and hard work helping to evolve the MFSW and look forward to continue working with her on this year's exciting agenda. I'd also like to send a special "thank you" to Fred Banfield and Susan Wick of Mintec for their past efforts and generous contributions to the MFSW and also to Charles Miller for his many years of dedicated service. Their presence on the board will be missed.

HALL OF FAME 2014

The Hall of Fame Committee would like to **invite all of you to submit nominees for Medal of Merit under 40**. This nascent category to honor young professionals was inaugurated in 2012 in our continuing effort not only to harvest young talents but also to enlist their participation in perpetuating awareness on the impact of mining in daily life. Guidelines and nomination forms are attached.

In addition, MFSW is also seeking sponsors for the 2014 event. While we recognize the decline in sponsorships and ticket sales in 2013 are directly related to the challenges faced by many of our past partners, **we hope, with your help, we will be able to reach new fundraising goals to enable us to expand our Outreach Program and to help improve the public's awareness and perception of our industry.**

Anyone wishing to receive more detailed information regarding nominating candidates for Medal of Merit under 40 or sponsorships should contact MFSW.

MARK YOUR CALENDAR

32nd American Mining Hall of Fame Awards Banquet & Fundraiser

DECEMBER 6, 2014

JW MARRIOTT, TUCSON STARR PASS