

## MINING AND MINERALS EDUCATION FOUNDATION

Thomas L. ALDRICH, Executive Director

November, 2023

www.miningfoundationsw.org

Home (miningeducationfoundation.org)

# CONCENTRATES

#### **HOF Awards Banquet to Induct Honorees on December 2**

The 41st Annual American Mining Hall of Fame Awards Presentation Banquet & Fundraiser will be held December 3rd at the JW Marriott Starr Pass Resort & Spa in Tucson, Arizona beginning at 6 PM. The banquet has 62 sponsors supporting the Mining Education Outreach Program overseen by the University of Arizona's School of Mining and Mineral Resources and we expect over 550 people to attend.



This year's Inductee is **Xavier Garcia de Quevedo**, Executive Vice President and Vice Chairman, Grupo Mexico. Xavier unexpectedly passed away on October 5, 2023. He was a great professional and mentor to many generations of miners. A graduate of the National Autonomous University of Mexico (UNAM), and later a graduate of the master's degree in Business Administration and Finance at the Tecnológico de Monterrey, García de Quevedo was widely recognized in the Mexican industry thanks to the expansion and development projects he led.



Medal of Merit Honoree **R. Gene Dewey** was former President of Molycorp and later Vice President of Carbon and Minerals for Unocal Corporation. Dewey unexpectedly passed away August 17, 2023. Dewey was a member of the Board of Directors of the American Mining Association and the National Mining Association from 1986 to 2000. He has been a member of SME since 1969. He is a founding member of the National Mining Hall of Fame and Museum, a member of the Mining and Minerals Education Foundation and The Mining and Metallurgical Society of America.



Medal of Merit Honoree **Edson R. McCord** retired as Director, Surface Extraction and Haulage with responsibility for Caterpillar's hydraulic mining shovels, electric rope shovels, draglines and trucks from 35 ton to 400 tons. His career spanned 40 years working for the such giants as Dresser Industries and Komatsu as well as Caterpillar. He and his wife, Anne, reside in Burlington, Wisconsin where he spends his time pursuing his hobbies of British sports cars and vintage automobile racing.



Medal of Merit under 40 Honoree **Benny Corbell** grew up in Morenci, Arizona and as part of a large mining family. He is an experienced Mining Engineer working in the mining & metals industry and is presently Mine Manager at Freeport-McMoRan's Bagdad operations. Corbell has been a Professional Engineer (PE) since 2015



The Industry Partnership Award goes to **Ames Construction** established in 1963 by Richard J. "Dick" Ames and his younger brother, Raymond "Butch" Ames. Working in the mining industry since 1986, Ames has successfully executed complex mining projects, which has placed them at the forefront of the mining industry.



A Special Citation Award is being given to **Arizona Copper Art Museum** which tells a genuine story that marries Arizona's greatest treasure with world legends and fantastic art. A massive collection has been organized of over 6,500 works of copper art and architecture of Western European and Northern American emphasis, spanning from 3500 B.C. to present day. The museum won the 2014 Arizona Governor's Tourism Award.

#### **HOF Awards Banquet to Induct Honorees on December 2**



Joseph R. De Lamar (1843 – 1918) was born in Amsterdam in 1843. De Lamar worked as a seaman until he was twenty, Three years later he received a captain's command. In 1878, De Lamar came to New York and went west, to Leadville, Colorado. In 1879 he bought the Terrible Lead Mine and operated it until 1885, at which time he sold it. He then obtained control of a mine west of Silver City, Idaho. He sold a half interest to English concerns for \$2,000,000 and turned his interest to the Cripple Creek Mining District in Colorado. He continued investing in mines. At the time of his death, he was one of the wealthiest men in America. Three once mining cities, now ghost towns, bear his name; Delamar Nevada, De Lamar, Idaho and Delamar, California.



**Felix P. McDonald (1875 – 1936)** was born in 1875 in England. He came to the United States in 1887, first living in Pennsylvania before moving to Utah in 1899. He worked as a miner in Mercur, Utah, where his older brother John was the superintendent. From Mercur, Felix worked at, and became superintendent of the Commercial mine, then went to the developing Ohio Copper mine in the Bingham Canyon area. Here, as superintendent, he developed a system of caving ore into raises feeding grizzlies over transfer raises. While this method involved driving additional raises, it was more economical due to the decrease in manpower needed than the alternate caving method which used tramming levels to move the caved ore to transfer raises. The Anaconda Copper Co. hired McDonald as the general superintendent and he successfully developed Inspiration. Soon, other block caving operations adopted his method. His method is still in use today. Inspiration Consolidated Copper Co. honored him by naming the main shaft at their Christmas Mine after him.



Stuart A. Bengson (1943 – 2021) was born in Marquette, Michigan in 1943. He graduated from Amphi High School in Tucson, Arizona in 1961, obtained a Bachelor of Science Degree in Forestry in 1970 and a Master of Science in National Resources Administration in 1978, both from the University of Arizona. In 1973, Bengson joined ASARCO LLC (Asarco) as an Agronomist at the Mission Complex in Sahuarita, Arizona. Over a 34-year career, Stuart was best known for his pioneering work in reclamation of tailings and mined lands at active and inactive mine sites in Arizona, New Mexico, California, Texas, Utah and Montana. He pioneered mine tailings reclamation using livestock and biosolids and successfully implemented innovative technologies for drip and micro-sprinkler irrigation. Bengson received numerous awards recognizing his accomplishments in the field of metal mine reclamation and land management. They include: 1984 SWCS Conservation of the Year Award, 1989 and 1991 SRM President's Award; 2003 Pioneer of Reclamation Award (American Society of Mining and Reclamation) and the 2016 Lifetime Conservation Heritage (Pima Natural Resource Conservation District AACD).



Dr. Stanley M. Howard (1945 – 2021) was born on September 5, 1945 in Torrington, WY where he graduated from high school. He received his Bachelor's Degree in Metallurgical Engineering in 1967 and his Doctorate Degree in 1971 from the Colorado School of Mines. He then began a distinguished 50+ year career at South Dakota School of Mines and Technology in teaching, mentoring, research and contributions to science and engineering. He served as the chair of the Department of Materials and Metallurgical Engineering from 1994-2000. Dr. Howard was an active member of the American Institute of Mining, Metallurgy and Petroleum Engineers (AIME) and The Minerals, Metals & Materials Society (TMS) since 1966 and held many volunteer TMS leadership positions. In 2016 and 2019, he served as President of TMS. In recognition of his volunteer service, he was awarded the 2021 Alexander R. Scott Distinguished Service Award in March of 2021. He was also a long-time Registered Professional Engineer. He has numerous publications to his name. In 1986 he co-founded Group V Metals, Inc which licensed technology to produce the purest tantalum and niobium compounds commercially available in the world with customers in Japan and Europe.

We Salute those significant contributors to the industry and profession!



# Hall of Fame Chairman, Shawn Hamilton Senior Account Manager

The uniquely American holiday of Thanksgiving that is upcoming later this week sets the mindset for my last newsletter communication of 2023. The MMEF is truly thankful for the outpouring of support that has been received this year! Sponsorship levels are



at the highest levels EVER and ticket sales have been both brisk and are in the neighborhood of record territory thanks to the support that has been provided by many of you reading this newsletter. It is both an exciting and fulfilling time to be a part of an organization that is in the trenches, educating our younger citizens about the critical importance of mining and minerals for a better, cleaner and more technologically driven world. Your memberships, sponsorships and ticket purchases for the annual American Mining Hall of Fame Awards banquet are the primary mechanism used to provide the funding for this effort. Through your support do you realize that in 2023 alone more than 6,500 young citizens were exposed (in person) to the educational curriculum overseen by Jodi Banta and executed in the classroom Chris Earnest and his small team of interns via the UofA's School of Mining and Mineral Resources? This is an outstanding effort and an exceptional amount of bang for our supporting dollars! The MMEF is very grateful that our chosen partner organization is able to steward the resources provided by you so effectively. Finally, think about this... when surveyed, 94% of teachers and 77% of pupils exposed to our collective education efforts rated the materials and presentation as outstanding! It is difficult to imagine getting 77% of a group of young people to agree to just about anything, let alone to endorse anything packaged as education as"outstanding." You get to be part of this through your support. Thank you all very much for coming alongside us in our efforts and look forward to seeing you on Saturday, December 2nd at Starr Pass at the Hall of Fame banquet!

## **MMEF MEMBERSHIP**

Annual membership renewal will soon be here in January 2024. Please consider asking your associates to join the Mining and Minerals Education Foundation. The



key to any organization is membership, especially new members.

Become a Member (miningfoundationsw.org)

Thank you all for your support of the MMEF. Help us get bigger and stronger and healthier. The Outreach Program needs your support!

#### THANK YOU 2023 AMERICAN MINING HALL OF FAME SPONSORS



Diamond: Grupo Mexico Mining/Asarco and Komatsu

Platinum: Ames Construction, Epiroc, Hexagon and M3 Engineering

**Gold**: -Empire Southwest, Eclipse Mining Technologies, Freeport-McMoRan, Ruen Drilling, Rummel Construction, WestLand Resources;

**Copper**: Capstone Copper-Pinto Valley, Caterpillar, Cementation, Doosan Bobcat, Independent Mining Consultants, Major Drilling, Origin Mining, Resolution Copper, Recon Engineering & Construction, Southwest Energy, SRK Consulting; and Turner Laboratories

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### A New Kind of School Leverages Entire University

The world relies on minerals for everything from energy and building materials to cellphones and jets. As demand increases, so do the challenges around using and producing minerals responsibly. Drawing on University of Arizona strengths, **the School of Mining and Mineral Resources** – jointly administered by the colleges of Science and Engineering – is bringing together students, professionals and communities across disciplines and boundaries to meet the complex challenges of sustainability.







#### **Outreach Corner by Chris Earnest**

Funded by the Mining and Minerals Education Foundation through the School of Mining and Mineral Resources at the University of Arizona



#### **MMEF Outreach Coordinator Activities**

Hello from Chris Earnest. Fall's fast approach filled the air with hopes of cooler days in the desert. It also brought a busy season to the outreach program and stuffed it with classroom presentations, public events, STEM nights, career fairs, and events for educators.

#### A Fun Filled Fall

October provided the program with a great opportunity to work with the Alfie Norville Gem and Mineral Museum during the Tucson Meet Yourself event in downtown Tucson. The outreach team, Chris, John, Sofia, and Carter, setup outside of the museum to educate the public about how mining and minerals build their world. For those who wanted to exercise their brains, the team provided a scavenger hunt in the museum. Over 60 people took up the challenge of searching the museum for 6 different minerals that power our everyday lives.



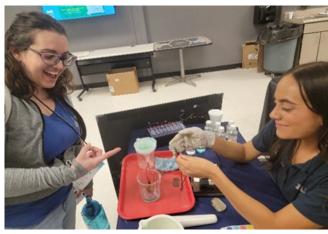
A young "Elsa" and her magic wielding older sister watch with awe as a solid appears out of a blue liquid.



Our Outreach Assistants Sofia Rodriguez and John Gengler show community members how minerals make their world possible at the Alfie Norville Gem and Mineral Museum during Tucson Meet Yourself

Many schools take advantage of the cooler fall weather to hold STEM nights which bring the community to the schools and show off student science projects. The outreach team participated in several of these this fall. We were excited to be joined by representatives from the University of Arizona Geoscience Department on October 26th for the Sabino High School STEM night. While professors and students from the Geoscience department introduced the rock cycle, the outreach team had visitors explore ore minerals and mining processes. The team is thankful to the science teacher, Mr. Newsome, for inviting us in for such a wonderful event.

#### **Out and About**



At the Arizona Science Teachers Association Annual meeting, Sofia demonstrated to teachers how their

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John helps high school students understand how metals are extracted from ore minerals at Southern Arizona Construction Career Days

the number of mines in our state and the wealth of opportunities those mine represent for them. The program would like to send a special thanks to Whitney Lennon from ASARCO for inviting us to participate in the event and to James Werner and

**Xavier Mining Laboratory** 

Several events this fall have allowed the outreach team to connect with Arizona educators and introduce the program to new audiences. At the STEM and Innovation Summit hosted by the SciTech Institute and the Arizona Science Teachers Association Annual Conference we were able to meet over one hundred educators for the first time while re-connecting with many old friends. As Earth Science classes return to Arizona High Schools, many educators are turning to the outreach program to take advantage of our activities which are aligned to state science standards.

A first for the outreach program this year was participation in the Southern Arizona Construction Careers Days. For two days in November, high school and middle school students from all over southern Arizona came to Kino Sports park to learn about career opportunities in heavy construction and mining.

The outreach program worked with James Werner, Director of the Sax Xavier Underground Mining Laboratory, and Adam Arbizo, Laboratory Coordinator, to educate students about their future in mining. Students who stopped by our booth were able to discover how there are many different paths into the industry, from higher education to operations, business, and everything in between. Many students were surprised by



Adam Arbizo for bringing a bolter up from the San Adam Arbizo, Laboratory Coordinator for the San Xavier Underground Mining Laboratory, introduces high school students to how a bolter is operated at Southern Arizona Construction Career Days.

#### **Outreach Corner by Chris Earnest (cont.)**



Sofia and Chris introduced electrowinning to over 100 middle school students during Arizona STEM Adventure at Pima Community College.

#### **Field Trip Time**

The program will remain busy. Along with cooler temperatures, December will bring a chance for the program to prepare for the busy spring season. We are looking forward again to the Science City event in March. Join us there to help educate the public about mining! o conclude, we would like to send a big thank you to the Mining and Minerals Education Foundation for enabling us to show students all over our state the amazing world of mining and mineral resources. We look forward to seeing everyone at the American Mining Hall of Fame Awards Ceremony. While you are there, don't hesitate to say hello John, Sofia, and Carter, our amazing student outreach assistants.

As always If you know of an educator who would like to see the outreach program come to their classroom this winter or spring, please tell them to contact Chris at <a href="mailto:earnest@arizona.edu">earnest@arizona.edu</a> or to visit https://minerals.arizona.edu/engagement to sign up for a presentation.



President Robert Tracy
Chief Engineer
Thyssen Mining



It's the time of season for reflecting on the year and giving thanks. With the Hall of Fame Banquet mere days away, a big thanks goes to Shawn Hamilton and everyone on our Hall of Fame Committee with special recognition for Tom Aldrich for all of their work in putting together another great program this year.

It has been a great year for the Mining and Minerals Education Foundation as a whole which allows us to continue making an impact by supporting various student groups and mining organizations that align with our mission to educate the public about the importance of the mining and mineral industries, in addition to the Education Outreach Program. The reach of the Outreach Program to educate students has been impressive and participation in events like the successful Mines of Limitless Minds held this month at the University of Arizona help extend that reach to more of the public. Thanks must go out to Chris Earnest and all his work to advance the Outreach Program.

And finally, thank you to our sponsors and members for your continuing support. We look forward to seeing everyone at the 41st annual American Mining Hall of Fame Banquet on Saturday, December 2nd, 2023 at the JW Marriott Tucson Starr Pass Resort & Spa. Have a happy and safe Thanksgiving!

## HALL OF FAME COMMITTEE MEETING

Date: Wednesday, January 10, 2024

Time: 3:30 p.m. — 4:30 p.m.

**ZOOM Meeting** 

RSVP: admin@miningfoundationsw.org OR 520-577-7519

# HAPPY THANKSGIVING

From the officers and the Board of Governors of the Mining and Minerals Education Foundation

