Members of the 2022 Hall of Fame Committee wish to express their gratitude to all the sponsors and guests for making the 40th Annual American Mining Hall of Fame Banquet & Fundraiser a resounding success. A lively crowd of over 500 gathered to celebrate our first woman, Denise Johnson’s induction into the American Mining Hall of Fame. Johnson is Group President of Caterpillar Inc., responsible for Resource Industries (RI).  

Along with Johnson, four past mining industry stalwarts, Zeno Lightfoot Dili, J. C. "Buck" O'Donnell, John Haskell Davis, Jr. and Donald J. Lunt Cottrell were inducted and represented by family members. 

A Medal of Merit award was presented to Steve Trussell, Executive Director of Arizona Mining Association and Arizona Rock Products Association for his contributions in advocating for the mining sector. A Medal of Merit Award under 40 was presented to Omar Smith, Senior Civil Engineer at WSP who has performed meritorious service to the mining industry above and beyond the normal course. 

The Industry Partnership Award was presented to Ruen Drilling for developed its international reputation as one of the very best in its business while serving the mining industry. 

A Special Citation was given to the Department of Metallurgical and Materials Engineering at Montana Technological University in recognition of its 100th year of educating students in the mineral industries. 

**THANK YOU 2022 SPONSORS**

**DIAMOND:** Caterpillar and Komatsu

**PLATINUM:** Eclipse Mining Technologies, Epiroc, Freeport-McMoRan, Hexagon, M3 Engineering, and Titan Mining

**GOLD:** Ames Construction, Asarco Grupo Mexico, Capstone-Pinto Valley, Doosan Bobcat, Empire Southwest, Independent Mining Consultants, MMSA; Meridian Construction, Newmont, Origin Mining, Ruen Drilling, Rummel Construction, Southwest Energy, SRK Consulting; Stantec, Westland Resources;

**SILVER:** Ausenco, BGC Engineering, CAID, CalPortland, Cascade Drilling, CEC, Cementation, CTI, DeConcini McDonald Yetwin & Lacy, P.C.; E3 Strategies, John Fenn, Fennimore, First Majestic Silver, Florence Copper, Hanlon Engineering, Hudbay (Rosemont Copper), Ivanhoe Electric, KGHM Carlota Mine, Major, Drilling, Modular, Montgomery and Associates, Next Plan LLC, Pam & Will Wilkinson, Pioneer Equipment, Professional Minerals Development, Recon Engineering & Construction, Resolution Copper, Ryerson, Skyline Assayers, South32, TPN Munculty & Associates, Tetra Tech, George Tsiolis Law, Tucson Electric Power, Thyssen Mining, Valley Forge and 

**Bolt Company, WSP Golder and Yellow Jacket Drilling**

**OTHERS:** NMHOF & Museum and Tom Scartaccini
MESSAGE FROM OUTGOING PRESIDENT, AMANDA BEST

Happy new year and best wishes for a prosperous 2023. The Mining and Minerals Education Foundation continued to build on the successes of previous years in 2022. The annual American Mining Hall of Fame Banquet was a grand success featuring inspirational and insightful presentations and the historic Induction of our first woman Inductee. We gave out more money than we ever have before thanks to the wonderful support of our sponsors. We have successfully implemented our name change to better reflect our emphasis on education and outreach and we are in the midst of a New Logo Contest to update our brand.

It has been an honor to serve as President of the MFSW this past year. I am gratified by the support I have been given from Tom Aldrich, the Board of Governors, Committee members, and sponsors. You are the ones that make it possible for the Foundation to pursue its mission. I am confident that through Robert Tracy’s leadership in 2023 the MFSW will continue to grow and achieve our goals.

As you all know, mining provides the resources society needs to prosper and grow. The MMEF is uniquely positioned to assist with advancing these efforts through the programs and activities that we support. The youth that reach with our message today are tomorrow’s professionals and leaders who will affect change and make a difference in how our industry is perceived.

Remember to return your ballot for this year’s slate of offices and governors. See you at the Annual meeting at Hexagon on February 15 and bring in a new member.

Date: Wednesday, February 15, 2023
Time: 3:00 p.m. — 5:30 p.m.
ZOOM Meeting
RSVP
admin@miningfoundationsw.org
520-577-7519

Zoom link will be sent to everyone who RSVP’s on or before Monday, Feb 7
MESSAGE FROM OUTGOING HOF CHAIR ROBERT TRACY

As we start the New Year, I would like to thank everyone who made 2022 a huge success. The 40th Annual Mining Hall of Fame Awards Banquet had the highest number of sponsorships ever, the second highest in sponsorship dollars, and was the fourth best attended event. Thank you to all of our sponsors and attendees for your support for the Mining and Minerals Education Foundation and our mission. The banquet raised $130,850 in sponsorships that will be used to support our outreach program lead by Chris Earnest. A big thanks goes to everyone on our Hall of Fame Committee with special recognition for Tom Aldrich for all of their work in putting together another great banquet. I am honored to have been the Hall of Fame Committee Chair and Vice President for this event. I look forward to 2023 and all it has to offer the Foundation and our industry. Please join us at Hexagon for the Annual meeting starting at 3 PM on February 15. Remember to return your ballot for this year’s slate of offices and governors. Don’t forget to bring in a new member.

NEXT HALL OF FAME COMMITTEE MEETING

Date: Wednesday, March 8, 2023
Time: 3:30 p.m. — 4:30 p.m.
Place: ZOOM & M3 Engineering, 2051 W. Sunset Rd., Tucson, AZ 85704-1722
Please sign in at the front desk upon arrival
RSVP: admin@miningfoundationsw.org or 520-577-7519

If you are interested in serving on the Hall of Fame Committee for 2023, call Tom Aldrich
SEEN AND HEARD AT THE 39th AMERICAN MINING HALL OF FAME AWARDS BANQUET

MMEF President Amanda Best (L) presents the Hall of Fame Plaque to 2022 Honoree, Denise Johnson.

MMEF President Amanda Best presents the “Success” Prazen Sculpture to Denise Johnson.

MMEF Hall of Fame Chair Amanda Best presents the “Support” Prazen Sculpture to Jerry Johnson.

MMEF Hall of Fame Chair Robert Tracy (R) presents the Medal of Merit to Francis McAllister, accepting the award on behalf of 2022 Honoree, Steve Trussell.

MMEF Hall of Fame Chair Robert Tracy presents the Medal of Merit under 40 to 2022 Honoree Omar Smith.

MMEF Hall of Fame Chair Robert Tracy presents the Industry Partnership Award to Arlan Ruen of Ruen Drilling.
A few Members of the MMEF BOG and HOF Committee gather together after the banquet for a photo.

MMEF HOF Chair Robert Tracy presents a Special Citation Award to Dr. Jerry Downey recognizing the 100th Anniversary of Department of Metallurgical and Materials Engineering at Montana Tech.

MMEF Hall of Fame Chair Robert Tracy presents the Mining Past Plaque to Valerie Dili representing Zeno Lightfoot Dili.

MMEF Hall of Fame Chair Robert Tracy presents the Mining Past Plaque to Margie Hanson representing Buck O'Donnell.

MMEF Hall of Fame Chair Robert Tracy presents the Mining Past Plaque to Cindy Hayostek representing John Haskell Davis, Jr.

MMEF Executive Director Tom Aldrich presents the Mining Past Plaque to Josephine Lunt and Marla Skinner representing Donald Lunt.

More Photos at 2022 Photo Gallery (miningfoundationsw.org)
Caterpillar was there in force to support Denise Johnson’s Induction into the American Mining Hall of Fame.

The motto of the MMEF hanging front and center for all to see.

BOG members Deb St. Aubin and Jean Austin greet each other.

Denise Johnson receives congratulations after the event was over.

It was a beautiful night outside as over 500 guests gathered to support the MMEF’s Mining Outreach program.

2021 Medal of Merit Recipient Sarah Strunk (right), BOG member Kathy Arnold (left) and Dawn Meidinger—just three of the fabulous women in the mining industry.
The crowd mingles at the reception prior to the banquet and induction ceremony.

Omar Smith celebrates the evening with family and fellow employees at the WSP table.

BOG member Terry McNulty, a Montana Tech graduate, enjoyed the evening at the Montana Tech table hosted by Next Plan, LLC as the celebrated their Special Citation Award.

Past President Cori Hoag (Right), Jan Rasmussen and Robert Harries strike a pose.

It was a good time for friends to get caught up.

Arlan Ruen, third from left, celebrate the Industry Partnership Award with new friends and associates.
Diamond Sponsor Komatsu hosted a table and were thoroughly enjoying the evening.

Past President Andrew Soderman (right) and his wife, Amanda chat with 2017 Medal of Merit under 40 recipient Eben Robinson.

Chris Earnest, Outreach Coordinator, takes a moment to enjoy the evening with his wife, Yohko.

Ten of the over 40 students who were able to attend the banquet thanks to our kind sponsors.

BOG member Dave Travis (2nd from right) hosts one of the Freeport-McMoRan tables.

It was a fun evening for the Dill family and friends as well as representatives from Resolution Copper.
A busy year for the outreach program with more to come in the spring.

2022 has seen the outreach program reach 4981 students during 126 presentations, tours, and events. We met with 273 teachers at 5 different educator events and we made it to 30 different locations throughout the state.

Our virtual materials kept making waves as well. The “Minerals Make It” series continued to be popular with younger students as it was viewed 2,177 times in 2022 and the “Mined in Arizona” webpage was viewed 3,066 times by people searching for information about mining in Arizona.

That all adds up to over 10,000 people learning about the importance of mining and mineral resources in 2022. All of it is thanks to the generous support from the Mining and Minerals Education Foundation. The “Minerals and Wifi” video watched in the back of mom’s car, the wide eyed discovery that copper is refined with electricity during a STEM day, the elementary school students who voted “Metallurgist” as the best career at their career day, all of those moments are thanks to your support.

Also thanks to your support is our newest video explaining a mining career for high school students. “Mining Is Us: Geotechnical Engineer” has been watched over 1,300 times in the first 30 days of it being posted on YouTube. The video was fully funded by the Mining and Minerals Education Foundation and produced by the School of Mining and Mineral Resources Outreach program. If you haven’t seen it yet, head over to https://www.youtube.com/@uaz_minerals and look for the “Mining is Us” video. Carolina does a great job of giving students a quick overview of what a geotechnical engineer does and showing them a window into her day. We are looking forward to working with other mining professionals to help expand students view of mining. If you know a rising star ready for the spotlight, be sure to point them our way.
This spring, the outreach program is very pleased to announce that the Mineral Resource Discovery Workshop at Flandrau Planetarium and Science Center has been successfully re-launched. Our UArizona student leaders are looking forward to helping young visitors to the planetarium’s workshops discover how copper is formed, found, mined, refined, and reclaimed. The workshops open in February and will run until the end of the spring semester in early May.

As the outreach program heads out into classrooms across the state in 2023 we hope you will keep an eye out for us at the following events:

- February 18th Engineering at the Mall at Park Place Mall in Tucson
- March 4th and 5th Science City on the University of Arizona Mall
- April 19th Mining Day at the Capitol

If you would like to join us as a volunteer at any of the above events, please contact Chris at earnest@arizona.edu for more information.

The outreach team was able to travel to over 30 different locations across Arizona (and one online presentation in Guatemala!) in 2022 thanks to the support from the Mining and Minerals Education Foundation.
The cooler Fall weather made travel pleasant brought the outreach program to Superior, Wilcox, Tucson, Phoenix, and Sierra Vista to present about the importance of mining and mineral resources.

Forging connections

Over the last two months the outreach program has had several chances to deepen connections with educators, the mining industry, and the public. At the Arizona SCITech Conference and the Arizona Science Teachers Association (ASTA) fall meeting the outreach program had the pleasure of meeting face to face with teachers from all over Arizona. Old friends were greeted heartily, and many new faces were introduced to the outreach program. In mid-October the Lowell Institute for Mineral Resources sent Chris Earnest, the outreach education coordinator, and Mario Muñoz, the recruitment coordinator, to the annual Women In Mining Conference in Salt Lake City. At the conference, Chris was able to introduce the outreach program to some of the attendees while receiving valuable feedback for improving the broad appeal of outreach program materials.

Right after returning from the conference, Chris and John Gengler, the education outreach intern, headed up to Superior to run a table at the Superior Mining Days by invitation of the Chamber of Commerce. Chris and John spent a beautiful day introducing residents of Superior and tourists from The Valley to how society benefits from the minerals mined in the Copper Triangle. At the very end of October, Chris and John put on their spooky googles and lab coats to help teach trick-or-treaters about mining at Flandrau Planetarium’s Science Spooktacular. Little ghouls and ghosts cackled gleefully when eerie green and blue minerals transmogrified into copper through the power of science.
After a surprise request for a virtual presentation from a High School in New Jersey brought Chris into the Mines Building at five in the morning to introduce mining to the students back east over Zoom, the outreach program put away the costumes and spooky decorations and hit the road. In-person presentations were given to schools in Phoenix, Sierra Vista, Tucson, and Wilcox. Buena High school in Sierra Vista took full advantage of both virtual and in-person offerings. Over Zoom, Mario introduced careers in mining and the education pathways needed to enter the industry. Then, he and Chris guided the students through a Google Sheets based mine design activity. The next week Chris went to Sierra Vista in person to have the students try their hands at being metallurgists through the newly put together Electrowinning kits mentioned in the previous newsletter. Through a contact made at the RAIN conference, also mentioned in the previous newsletter, Mario and Chris spent three days in Wilcox talking to every High School and Middle school science class. Chris introduced the 5th, 6th, 7th, and 8th grade students to materials mined near Wilcox and around Arizona, what we use those minerals for, and the people that work at the mines and processing facilities. The students enjoyed having guests come in to talk to them with one student commenting, when asked why they would recommend the presentation, “because it’s really interesting and you get to know more about mining.”

**Field Trip Time**

After a presentation from Chris on mine design to a Computer Technology and Engineering (CTE) class at Sunnyside High School, the teacher and students wanted a chance to visit a mine in person. Fortunately, the University of Arizona’s San Xavier Underground Mining Laboratory (affectionately known by students and staff as the “SX Mine”) has re-opened for tours. Assistant Director James Werner has been graciously assisting the outreach program by allowing interested classes to tour the mine as well as leading the tours himself when his busy schedule allows. When the Sunnyside students arrived, Mario introduced them to all the different people it takes to make a mine and gave them some ideas about how they could enter the industry.
The excitement was palpable as the students put on their PPE and Dr. Eric Lutz, Associate Professor in the College of Public Health and the Department of Mining and Geological Engineering, led them through the historic workings and the new decline. Walking into the mine allowed students to connect what they learned in the mine design exercise, how to plan so that you don’t mine excess material, with the reality of how much work moving all that rock requires.

Sunnyside high school is not the only school to request a tour of the SX Mine. Pusch Ridge Academy visited in November and the recruitment outreach program has brought several community college groups through as well."

While not a viable option for every school group, the SX Mine provides a unique opportunity for students to connect what they learn during outreach presentations with a real-life example. Pictures say a thousand words but being there in person leads to quick understanding. The education outreach program would like to thank the Assistant Mining Laboratory Director James Werner, Dr. Eric Lutz, the faculty of the Mining and Geological Engineering Department, and the graduate and undergraduate University Students who have donated time and energy to make this field trip opportunity available to the outreach program.

Students noticing that not all the rock in the mine contains copper minerals.

An 11th grade student hoping to find some of the malachite she saw in class.
DIARAMA—MINING MODEL
HAS FOUND A NEW HOME
Bullion Plaza Cultural Center & Museum – In Historic Miami, AZ (bullionplazamuseum.org)

Great progress is being made on the Diorama which has been re-located to the Bullion Plaza Cultural Center & Museum in Miami, AZ. Larry Dykers and other team members have been working diligently retrofitting the diorama to the available space. A grand dedication is expected sometime this quarter.

The Bullion Plaza Cultural Center & Museum is housed in the Bullion Plaza School in Miami, AZ. The historic building was designed by Henry C. Trost Architects and Engineers of El Paso, Texas. It was opened as a grammar school in 1923. The main two story-building contains over 20 classrooms and a small theater-auditorium.

The public face and outreach of Bullion Plaza Cultural Center & Museum is led by Tom Foster, Executive Director.
Get ready! MINEXCHANGE 2023 features some of the biggest names in the mining industry today. Explore the new products, comprehensive services and integrated solutions that make your job smarter, easier, and safer – all from industry vendors who understand what drives your needs today is the solution for tomorrow.

Register using the link below
SME Annual Conference & Expo | 2023

**MMEF MEMBERSHIP**

Annual membership renewal has been underway since January 3. 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!
We gained 19 new members in 2022. Thank you all for your support of the MMEF. Total membership is at 132. Go out and encourage your associates to join. On behalf of Amanda Best, our 2022 President, the Foundation wishes to extend a warm welcome to our newest members:

David Hunt is the founding member of Hunt Group, LLC and a proud member of the mining community.

James O’Neil is a graduate of the W.P. Carey School of Business at ASU and has 50 years experience in the mining industry having worked for Asarco for 30 years. He recently was the CFO at Jerritt Canyon Gold and serves on the BOD of Galleon Gold.

Monica Salguero is the Environmental & Sustainability Lead in the US and Mexico for Ausenco. She has also worked internationally and is a recognized expert in Hydrology and all aspects of mine assessments. She is a graduate of the University of Arizona.

Andrew Whitsell is Key Account Manager for Cascade Environmental with strong experience in drilling projects. He has a degree in Environmental Geology from Northwest Missouri State University and an MBA from the University of Arizona.

Caelen Burand is the President and Founder of Young Mining Professionals—Arizona. He is a student at the University of Arizona working toward his BS and MS in Mining & Mineral Engineering.

Robert Button is with Anfield Industrial Solutions, Inc.

Fallon Williams is with Kobukers.

ANNUAL MEMBERSHIP NOW DUE

Please sign on to http://miningfoundationofthesouthwest.wildapricot.org/join to renew your 2023 membership. Those who still prefer to renew membership by checks should continue to forward payments to P.O. Box 42317, Tucson, AZ 85733. Your donations are tax deductible to the extent allowed by law.

Membership Matters
What We're all about...the School of Mining & Mineral Resources

A common refrain by miners is “if it can’t be grown, it must be mined.” We depend on mineral resources for nearly all aspects of our daily lives and as our societies become more technologically developed, we become increasingly dependent on nonrenewable mineral resources. We encourage the next generation of scientists and engineers to become informed about this topic—who knows, who might discover the next big breakthrough in advancing sustainable and responsible mining.

With funding from the Mining and Minerals Education Foundation, the School of Mining & Mineral Resources provides educational programming geared towards middle school, high school and college-level audiences. Head to Minerals.Arizona.edu for more details.

ANNUAL MEMBERSHIP NOW DUE

Please sign on to http://miningfoundationofthesouthwest.wildapricot.org/join to renew your 2023 membership. Those who still prefer to renew membership by checks should continue to forward payments to P.O. Box 42317, Tucson, AZ 85733. Your donations are tax deductible to the extent allowed by law.
2023 ANNUAL MEETING

Mining Foundation of the Southwest

Date: Wednesday, February 15, 2023
Time: 3:00 p.m. — 5:30 p.m.
Place: Hexagon
RSVP: admin@miningfoundationsw.org
OR
520-577-7519

Beverages & hors d'oeuvres will be served