

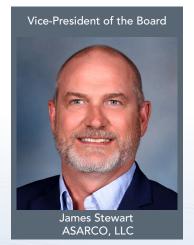
MINING MATTERS

AN AMA PUBLICATION

Mining...It's Essential For Your Life

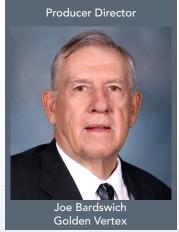


BOARD OF DIRECTORS:





















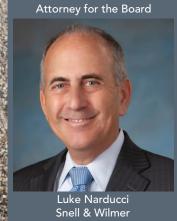




Supplier Co-Director

Ernie Smith

ICT Industrial LLC





MISSION STATEMENT:

To be the primary advocate of the Arizona mining industry through: promoting sound public policy at all levels of government; educating the public about the benefits of mining; and supporting the sustainability of a safe and responsible mining industry.



MESSAGE FROM THE CHAIRMAN:

"To be the primary advocate of the Arizona mining industry through promoting sound public policy at all levels of government, educating the public about the benefits of mining and supporting the sustainability of a safe and responsible mining industry." This Arizona Mining Association Mission Statement was created by the Board of Directors over a decade ago and has proven to withstand the test of time. In reflecting on this Statement, I feel we continue to work to achieve this, and are in fact achieving a good portion of the Mission, but we still have significant ground to cover to achieve the entire Mission Statement.

Where we exceed the Mission Statement

Since the Mission Statement was adopted, the Association has become the primary advocate for the mining industry in Arizona. We promote good policy throughout the government, and I will commend all the AMA committees, the Chairs of the committees and the AMA staff for the great job they are doing in this regard.

The Government Affairs committee over the past decade has established a relationship based on honesty, credibility and knowledge with the Governor's office and members of the Arizona congress.

This has positioned all the members of the AMA as the experts in our field and opened lines of communication with lawmakers that allows lawmakers to reach out directly to us before laws are proposed and then consult with us on proposed changes to laws.

The Environment Committee and all of its subcommittees have done a tremendous job at building an open relationship with the Arizona Department of Environmental Quality, allowing us to continue with our Mission Statement objective of "promoting sound public policy at all levels of

government."

Likewise, the Land Committee and Water Policy Committee along with their subcommittees have worked incredibly well with their respective government agencies in educating them on conservation and sustainable efforts of the industry. Lastly, our newly combined AMA and ARPA Safety Committee is furthering our joint safety efforts and working very well with MSHA and the Arizona Mine Inspectors Department.

All these efforts have strongly supported our Mission Statement and are exceeding the expectation of the Mission Statement. I want to thank all involved in these committees and commend you for your strong work. That said, there is still work to be completed.

Where we need to focus our efforts

Education. We have a great Education Program Director in Stephanie Jensen! That said, we need to focus our efforts as an Association in working with her and implementing her ideas and programs. Education in Mining is critical to the sustainability of our industry, and it begins with each of us.

As we prepare for our next Annual Meeting, later this year, I want the focus to be on Education and how each of us can support this effort and achieve our decade old Mission Statement. In the same manner, we have been successful in being the primary advocate for the mining industry at all levels of government. So, the challenge to everyone is to come to the Annual Meeting this year prepared to provide your ideas on mining education.

"Sustainability of a ... responsible mining industry." We end our Mission Statement with this phrase, and we have come a long way in promoting a responsible mining industry over the



Francis McAllister
Freeport-McMoRan
AMA Chairman of the Board

past several years by implementing policies on safety, climate change, and ESG. As we move forward as an Association, we need to look for opportunities to discuss with the public the successes that we are achieving as members of the AMA in focusing on our collective efforts and strides we are making in the arena of responsible mining.

Lastly, we need to improve our interaction with our supplier members. While not specifically mentioned in our Mission Statement, as mining companies we do have a commitment to support our supplier members. Attending events such as the "Reverse Expo," supporting their programs at our Annual Meeting, and providing them opportunities to meet with our respective supply teams is a commitment all of us make as they join the Association. Please utilize the Supplier Portal and support their local businesses.

I want to thank every one of you for helping us achieve our Mission Statement. It was a lofty statement when conceived over a decade ago, but it remains our focus and guides our actions.

2023 AMA ORGANIZATION CHART

AMA BOARD OF DIRECTORS

AD HOC **Tax Taskforce** Chair: Rotates

Suppliers

Vice Chair: Jim Norine, Ausenco

Committee AMA Chair: Tyler Vincent, Capstone Copper. ARPA Chair: Patrick Martinez),CalPortland ARPA Vice-Chair: Mario Juarique, Cemex

Joint AMA/ARPA Safety

Government Affairs Committee

Chair: Rebecca Hudson-Nunez, Freeport McMoRan Vice Chair: Jeremy Browning, GovGroup LLC

FACILITATING COMMITTEE

Lands Committee

Communications Committee

SUPPORTING COMMITTEE

Environment

Freeport-McMoRan
Vice Chair: Scott Thomas,
Fennemore Craig

AD HOC

Water Policy Vice Chair: Fred Breedlove.

Chair: Travis Snider, Arizona Sonoran Copper Company Vice Chair: Bob Linsell, Granite Construction

Bio-Diversity Subcommittee Chair: Robin Barnes, Hudbay Minerals Vice Chair: David Cerasale, Westland Resources

Air Quality Subcommittee
Chair: Kami Ballard,
Resolution Copper
Vice Chair: Amanda Reeve,

AD HOC Solid Waste Subcommittee Chair: Austin Jones, Freeport-McMoRan

Water Quality Subcommittee Chair: William Hart, Freeport-McMoRan Vice Chair: Lee Decker Gallagher & Kennedy

2023 AMA Committee Meeting Schedule

Committee or Subcommittee	Chair	Company	Meets On	Time
			Meets 3rd Friday -	
*Air Quality Sub Chair	Kami Ballard	Resolution Copper	Monthly	10am - 12pm
Air Quality Sub Vice-Chair	Amanda Reeve	Snell & Wilmer		
			Meets 2nd Tuesday -	
**Biodiversity Sub Chair	Robin Barnes	Hudbay Minerals	Monthly	10am - 11:30am
Biodiversity Sub Vice-Chair	David Cerasale	WestLand Resources		
			Meets 2nd Wednesday -	
Communications/Education Chair	Jerry Bustamante	Hudbay Minerals	Monthly	11am - 12:30pm
Communications/Education Vice-Chair	Sophie Dessart	Florence Copper		
			Meets 2nd Wednesday -	
^Education Sub Chair	Whitney Lennon	ASARCO LLC-Grupo Mexico	Monthly	9:30am - 10:30am
Education Sub Vice-Chair	Jamie Ramsey	Capstone Copper-PVM		
Environment Chair	Ned Hall	Freeport McMoRan	Meets as needed	Varies
Environment Vice-Chair	Scott Thomas	Fennemore Craig		
			Meets every Monday	
			while in Legislative	
Government Affairs Chair	Rebecca Hudson-Nunez	Freeport McMoRan	Session	9:30am - 10:30am
Government Affairs Vice-Chair	Jeremy Browning	GovGroup LLC		
			Meets 2nd Tuesday -	
Lands Chair	Travis Snider	Arizona Sonoran Copper	Monthly	12pm - 2pm
Lands Vice-Chair	Bob Linsell	Granite Construction		
			Meets 3rd Thursday -	
AMA Joint Safety Co-Chair	Tyler Vincent (AMA)	Capstone Copper-PVM	Monthly	9:30am - 10:30am
ARPA Joint Safety Co-Chair	Patrick Martinez (ARPA)	CalPortland		
ARPA Joint Safety Vice-Chair	Maurio Juarique (ARPA)	Cemex		
*Solid Waste Sub	Austin Jones	Freeport McMoRan	Meets as needed	
			Meets 4th Wednesday -	
Suppliers Chair	Ernie Smith	ICT Industrial	Monthly	11am - 1pm
Suppliers Vice-Chair	Jim Norine	Ausenco		
Tax Taskforce (AD HOC)	Varies	Open Position	Meets as needed	Varies
Water Policy (AD HOC)	Karlene Martorana	Resolution Copper	Meets as needed	Varies
Water Policy Vice-Chair	Fred Breedlove (TBA)	Freeport McMoRan		
			Meets 3rd Wednesday -	
*Water Quality Sub Chair	William Hart	Freeport McMoRan	Monthly	10am - 12pm
Water Quality Sub Vice-Chair	Lee Decker	Gallagher & Kennedy		

^{*} These Subcommittees overseen by Environment Committee

Meeting dates are subject to change based on availability of the chairs and agenda items



^{**}This Subcommittee overseen by Lands Committee

[^] This Subcommittee overseen by the Communications Committee

SAFE MINING PRACTICES: 18 MINE SAFETY TIPS (PART THREE) 13-18

13 WATCH FOR DUST HAZARDS

Loose silica dust or other particles can travel through the air in denser portions than normal when mining. These specks can disturb the respiratory system, depending on their size and makeup.

Vacuum devices, screens, transfer shoots and wet fan scrubbers can capture the tiny bits and clear the air for workers.

Respiratory protection is also critical because miners are susceptible to lung issues. Respirators and ventilation masks can ward off airborne impurities that miners might confront

KEEP ELECTRICAL SAFETY IN MIND

Like most other job sites, mines use power tools, lights and other electrical equipment, which need electricity. Sending electricity through these locations and transporting machines litters the space with extension cords and wires.

These cords and electronics in damp mines can raise the risk of electrocution or electric shock, but maintaining electrical safety can protect workers from the hazard. Grounding the system, incorporating resilient cords and insulating the connections can manage the currents.

You can also bundle the cords to prevent tangling and move them out of walkways to avoid tripping.

PREPARE FOR THE POSSIBILITY OF SLIPS AND FALLS

15

Miners can stumble or fall from high places, and people can travel down several feet onto hard surfaces due to lengthy shafts.

Workers can also slip on liquid, mud or loose rock while walking, but high-traction footwear can give you a better stance on uneven ground. Sizable work boots might affect your gait, but they can keep you upright.

Toppling off ladders is another possibility, and ladder securing equipment could solve it. Underground mining uses fixed ladders, and safety belts and lines can draw workers back if they end up slipping on far-reaching shafts. Surface mining branches out to other types, but toe clearance and strong materials are requirements across the board.

16 CONSIDER THE POTENTIAL FOR CAVE-INS

Cave-ins have been a prevalent accident in mining operations for years, and they can be fatal. Weighing the likelihood of collapses in different scenarios can develop awareness in mining crews.

While cave-ins can happen without warning, workers can methodically complete their duties without cutting corners. Compliance with mining regulations and attentiveness can keep workers from getting trapped.

Tracking emerging technology for mining can also amplify safety and strengthen subsurface structures. Devices that can pinpoint liabilities early can help crews deal with the risks right away.

17 EMPHASIZE COMMUNICATION

Relaying information about the conditions and progress of mining activities is crucial. Lines of communication should be handy so workers can warn others about questionable areas or accidents as soon as possible.

Signs designating hazardous areas can visually convey safe areas, and clear labels can clue workers in on how or when to use their equipment and tools.

Mobile devices are currently used to pass on updates, but the signal for these can be weak or nonexistent underground. On-site communication systems are another technique for transferring messages to miners.

18 TAKE ADVANTAGE OF PROFESSIONAL TRAINING AND REFRESHERS

After learning the routine, workers can start to feel comfortable in their roles, but they can also forget vital procedures. Their caution can wane as they settle into the routine. Reminders about the regulations from supervisors and coworkers can create a sense of accountability. Refresher training courses can also help you to go through the process with confidence.

The right procedure for mining can equip miners to handle surprises and variations. Knowledgeable miners can push the industry forward in safety measures.

(Courtesy of T.M. International LLC)

AMA'S NEW

SAFE MINER



The AMA/ARPA Joint Safety Committee Co-Chair, Tyler Vincent of Capstone Copper, has created a new AMA Award for 2023.

The nomination categories are:

- **1. Life Saver Intervention** Has someone directly prevented a fatal injury by stepping in and acting?
- 2. Most Influential Has someone dramatically affected the performance of the site by influencing others?
- 3. Contractor Living the Values Has a contractor gone above expectations to achieve a culture of safe production?
- **4.** Leadership in Safety Has someone challenged the status quo, taking the organization to the next level?
- **5. Culture Creator** Has someone made a significant impact on culture that has changed the dynamic of the mine?

Each year, AMA members can nominate employees and contractors for any of the SAFE MINER categories. These categories are meant to reflect the hard work and commitment of those individuals that go above and beyond to ensure every miner goes home safe and healthy every day. While categories like the Life Saver Intervention are important, the other additional categories are focused on the intangibles of culture, leadership, influence, and values that lead to world class safety performance that aren't as easy to calculate.

These nominations must be accompanied with a detailed explanation, photo of the nominee, and results that were realized. Recipients of the award will attend the AMA Annual Meeting at the end of the year

Apply online on the AMA website.



ARIZONA MINING ASSOCIATION SAFE MINER NOMINATION FORM

What is the SAFE MINER Award:

The SAFE MINER Award is designed to recognize exemplary individual safety performance within Arizona's Mining Industry.

The SAFE MINER Award stands for Safety Actions for Excellence; Most Inspirational Never Expected Recognition.

Nomination Categories:

Life Saver Intervention – Has someone directly prevented a fatal injury by stepping in and acting?

Most Influential – Has someone dramatically affected the performance of the site by influencing others?

Contractor Living the Values – Has a contractor gone above expectations to achieve a culture of safe production?

Leadership in Safety – Has someone challenged the status quo taking the organization to the next level?

Culture Creator – Has someone made a significant impact to culture that has changed the dynamic of the mine?

Award Selection:

Voting will occur once per quarter during the regularly scheduled AMA / ARPA Safety Committee Meeting. One nominee will be selected each quarter. The recipient will be in one of the five categories listed above. Voting selection will be based on the nominee that was most impactful to an organization.

Nominee First Name	Last Name	Nomination Category
Provide a description of what happer	ned:	
Nominated by First Name Print	Last Name Print	Date

Nominee Awarded? (Yes / No)	

The AMA Welcomes Our Newest Members

SUPPLIERS:

PCL Industrial Services – PCL Industrial Services is a diversified, full-service heavy industrial contractor and fabricator servicing a client base in the oil and gas industry that includes petrochemical, mining, power, renewable energy, cogeneration, gas compression, renewable natural gas, and gas transmission companies.

Bodell Construction – Bodell bolsters a significant resume in the mining sector having provided construction services for notable clients. Within these facilities we have completed power generation infrastructure, water treatment, chemical storage, crushing and conveying, grinding circuits, ore processing, storage and handling, emission controls, truck shops, and administrative spaces.

Chemtrade Logistics – Chemtrade is one of the largest producers and marketers of sulfuric acid in North America serving mining, pulp & paper and heavy industry. We are major producers of water treatment, oil & gas and other process industry chemicals including sodium chlorate, hydrochloric acid, chlorine, caustic soda, sodium bisulfite, sulfur, sulfur dioxide, aluminum sulphate, poly aluminum chloride, aluminum chloralhydrate, hydrogen sulfide and carbon disulfide.

Graco – Graco manufactures and markets premium equipment to move, measure, control, dispense and spray a wide variety of fluid and powder materials. We employ approximately 3,700 people worldwide and serve thousands of customers in over 100 countries. In 2020, net sales were more than \$1.6 billion.

Aecon – Aecon is an industry leading construction company performing work throughout Canada, USA, and the Caribbean. Aecon offers self-perform construction services to new greenfield mine sites as well as retrofits and upgrades to existing operating mine sites.

WESCO (Western Explosives Systems Co.) – We offer a comprehensive array of explosives ranging from bulk and packaged emulsions to ammonium nitrate, dynamite, detonators, and more. Our innovative product line is perfectly complemented by our wide range of blasting services, which includes drilling, loading, shooting, computer modeling, and technical support.

Shermco Industries – Field Services - electrical power systems maintenance & repair, rotating equipment maintenance & repair, drive systems & maintenance repair. Shop Services, Training Services, Professional Services, Cable Services, Protection & Control, New Equipment Sales & Services, Cryptocurrency Services, 24/7 Emergency Service Available.

Arizona Electrical Apparatus (AEA) – Involved in selling, maintaining, building, and repairing electrical power distribution and motor control products. We refurbish antiquated equipment, build new custom equipment, install, and engineer electrical equipment solutions for the mining industry.

Green Tanner Industrial – Proudly serving commercial, industrial, renewables, and government clients across the Southwestern United States, Green Tanner Industrial Construction delivers unparalleled electrical installation and construction services with the highest safety standards in the industry.

State Fire – State Fire offers service and installation of all fire and life safety systems including but not limited to vehicle suppression, fire extinguisher, fire sprinkle, fire alarm, and much more.

CONSULTANTS:

Trinity Consultants – We develop and implement intelligent solutions that efficiently achieve clients' EHS, engineering, and science-related business objectives, while benefiting our employees and stockholders.

EXPLORATION MINING:

Equinox Gold – Equinox Gold is a growth-focused gold producer with seven operating mines and a clear plan to increase production by advancing a pipeline of growth projects.

AMA COMMITTEE & SUBCOMMITTEE UPDATES



* Air Quality Subcommittee

Here are a few items that the AQ Committee has worked on since January 2023:

- Submitted comments to USEPA regarding its Proposed Rule on Prevention of Significant Deterioration (PSD) and Nonattainment New Source Review (NNSR): Reconsideration of Fugitive Emissions.
- Submitted comments to USEPA regarding its Proposed Rule on Reconsideration of the National Ambient Air Quality Standards (NAAQS) for Particulate Matter.
- Monitoring the USEPA Good Neighbor Plan for 2015 Ozone NAAQS and potential implications to Arizona
- Monitoring the CEQ NEPA GHG/ Climate Change Guidance and potential implications to mining operations in Arizona

For more information, please contact Chair, Kami Ballard



Will this heat or the Arizona legislative session ever end? The answer to both seems to be no. The Legislature has not met since June but they have not yet adjourned sine die. The most pressing remaining issues are the confirmation of Governor Hobb's executive agency director nominees (5 nominees have received full Senate confirmation, 2 have received a recommendation from the Senate committee, and more than a dozen remain in limbo) and the passage of transportation tax language, known as Prop 400, that will subsequently be sent to Maricopa County voters. While the AMA Government Affairs Committee will continue to monitor any legislative action, I am happy to report that we have had a successful session thus far. We were able to stop problematic bills and support necessary funding for our key state agencies and the mining school.

The GA Committee also helped to submit joint comments on:

 Grant Support Letter Regional Technology & Innovation Hub Designation Consortium: Metals, Materials, and Manufacturing for the Nation's Infrastructure Tech Hub (M3 Tech Hub)



For more information, please contact contact Chair Rebecca Hudson-Nunez

Lands Committee

During July, the Lands Committee submitted joint comments on the below information regarding the following issues:

- Request for a Public Meeting Letter for the Prescott National Forest/ Hassayampa River Withdrawal
- Produced a Mineral Assessment of the Prescott National Forest/ Hassayampa River Area Withdrawal Proposal to a Congressional Office
- Congressional request for information on the Goldwater Range Expansion to Congressional staff
- Comments regarding the Baaj Grand Canyon National Monument /Mineral Withdrawal to a reporter at National Review
- Comments on Proposed BLM Conservation and Landscape Health Rule to Congress
- A letter regarding the BLM ANPR on Resiliency

For more information, please contact Chair Travis Snider



AMA/ARPA Joint Safety Committee

The Joint Safety Committee has created a new Award for their field (see information in this newsletter), and

 Submitted comments jointly with the Air Quality Subcommittee on MSHA Silica Rule - Request for an Extension Letter



For more information, please contact Chair Tyler Vincent

Water Quality Subcommittee

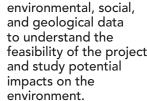
The AMA WQSC continues to monitor ongoing legal proceedings with regards to the final WOTUS definition and the recent SCOTUS decision and its impact on mining expansions and AZPDES permits. The WQSC provided comments to EPA and the Corps highlighting concerns with a revised definition that did not take into account the arid west perspectives. We also helped support an amicus brief supporting a narrow definition of WOTUS for a briefing on the Sackett vs EPA case in the Supreme Court.

We have been working with, and providing comments to ADEQ and the proposed revisions of APP template language. The committee was provided with drafts of boiler plate language for new APP applications and amendments and were able to provide substantial comments to revise the framework language through the stakeholder process.

The committee has delivered comments for suggested revisions to ADEQ's Water Quality Protection Fees Rule that supported increased fees for water quality

protection programs based inflation, and proposed that the fees collected for APP and AZPDES programs not be used to support activities outside of the programs.

For more information, please contact Chair Bill Hart



The tour took place on May 28th via bus, and we were able to make a stop to get up close and personal with the mine overlook and the copper anodes (see pictures).

Patricia Robertson, Senior Mine Engineer gave us a wonderful tour of the mine, via bus. We had the

priviledge of meeting many of the supervisors and upper management during our lunch and presentation, and many of our suppliers made some great connections!

Thanks so much to the great group at Carlota Copper.

You took great care of us and we can't wait to see you at the Reverse Expo in

For more information, please contact Chair Ernie Smith







Suppliers Committee



The AMA Suppliers Committee recently toured KGHM, Inc. - Carlota Copper Company. The Carlota Mine is located in the Miami-Globe mining region of Arizona. The currently mined deposit was identified in the mid-1990s. After confirming the

resources, several years were spent collecting baseline



It is with great sadness that we announce the passing of Duane Henry Andersen on Sunday morning, June 4th, at his home in Vail, AZ.

Duane was a skilled and veteran manager with decades of experience in a wide range of industrial settings, including mining, mineral processing, smelting, refining, manufacturing, and power generation.

Duane was an expert in mine reclamation and permitting and held positions with a number of the world's largest mining companies, including Magma Copper Company, Newmont Mining Corporation, BHP Copper North America, as well as Hudbay Minerals' Rosemont Project, in the Santa Rita Mountains area in Southern Arizona.



Duane was an avid fisherman and especially enjoyed trips to Mexico with close friends. He cherished the times he went hunting and camping with his children. In recent years, Duane and his partner, Dr. Linda Harrington, enjoyed international travel several times to Italy and Central Europe. Duane Andersen had three adult children, Andrew, of Tucson, Katherine of San Francisco, CA, and Anthony, who predeceased him in 2017. Dr. Linda Harrington was his domestic and business partner for the past 8+ years and was honored to share a home and life with Duane. A celebration of Duane Andersen's life took place on June 11th in Tucson.

A public memorial service was held at East Lawn Palms Mortuary and Cemetery, 5801 E Grant Road, Tucson, AZ, at 10am on Sunday, July 9th, followed by a reception.

ASMI TRAINING PRICES INCREASE



July 18, 2023

Subject: Mine Safety and Health Education and Training Fee Increase

Dear Mining Industry Members,

In October of 2022 the Arizona State Mine Inspectors (ASMI) approved Part 48 Training Plan was modified to exclude the agency from utilizing photos, PowerPoints and lectures specific to the "Introduction to the Work Environment". The modified Part 48 Training Plan now includes a visit and tour of the mine, or portions of the mine. Due to the change in format of training, ASMI is experiencing a significant increase and demand for New Miner Training classes. Therefore, we are approaching our industry members in an effort to propose a fee increase to the New Miner, Annual Refresher and First Aid and Cardio Pulmonary Resuscitation (FA/CPR) classes. This fee increase will be utilized to assist in covering the costs to hire an additional Training Officer; allowing ASMI to increase the number of classes and student's to be trained each year.

The effective date of the fee increase is September 1, 2023.

Class	Current	<u>Future</u>
New Miner	\$30.00	\$60.00
Annual Refresher	\$15.00	\$30.00
First Aid/BBP/CPR	\$10.00	\$20.00

Please contact me or my deputy director Laurie Swartzbaugh with any concerns or questions at 602-542-5971.

Thank you for your cooperation.

Sincerely,

Paul D. Marsh

Arizona State Mine Inspector



Arizona State Mine Inspector, Paul Marsh

AMANDA REEVE

AMANDA REEVE, ENVIRONMENTAL & REGULATORY POLICY ADVISOR

Behind the Scenes Heroes

While serving in the Arizona Legislature, Amanda
Chaired the House Environment Committee and the
Arizona State Agency Fee Commission working diligently
on environmental and regulatory issues impacting
Arizona. Presently, she is the Vice-Chair of the Air Quality
Subcommittees for both the Arizona Mining Association

Luke Narducci, a partner at the law firm of Snell and Wilmer LLP considers Amanda, family. Amanda and Luke have been professional colleagues in the same law firm and legal team for over 20 years. During that time, they have worked closely together in the legal, government relations, community and political arena. He has seen her go through her academic education, her political career and her life endeavors, challenges, and many successes. He is proud to call

her family and a professional colleague. Luke stressed: "Her work, temperament, gregarious nature, and insight in the

and that is their reward. This month's cover story is about someone who helps move the needle for the AMA but, in her own right, she is front and center in her field!

various arenas makes life better for <mark>all of us, and especia</mark>lly me.

e all love the movers and the shakers in our

mining, the environmental agencies, the people who

write regulatory policies, our legislators and lobbyists

that move laws, etc. We are also aware that the people

behind the scenes of business are the 'nuts and bolts' of

industry. The executives that are the face of

Amanda Reeve is one of the most caring individuals in Arizona regarding all aspects of quality of life in our beloved state and this includes all aspects of our environment. She has spent more than two decades trying to improve life in Arizona for all people. She has accomplished this by improving herself by furthering her education and her knowledge and through involvement in all forms of organizations, both public and private. She has worked selflessly as an elected official in the House of Representatives for the State of Arizona. She was a member of the Arizona House of Representatives representing District 6, serving from 2010 to 2013. She appreciates the balance in the environment needed to achieve a great place to live, work, play and raise a family.

Amanda Reeve's experience serving in the Arizona House of Representatives, in addition to her more than 20 years of working in the legal profession, ideally positions her as a key member of Snell & Wilmer's environmental and natural resources team. However, her passion, focus and expertise extend beyond the environmental and natural resources issues into other regulatory, policy and election-related areas. Amanda provides public policy services to clients through stakeholder identification and organization, the regulatory process and reform, and the legislative process. She is well known for her ability to develop public policy and craft bipartisan support to advance bills of significant importance to Arizona businesses.

Amanda serves as a Public Member Commissioner on the Maricopa County Superior Court Judicial Nominating Commission.

During her tenure serving as a State Legislator and even since in her role as a Policy Advisor, Amanda has received numerous accolades recognizing her leadership and work on significant policy measures, environmental issues and community projects, which include:

- Valley of the Sun Clean Cities Coalition, Clean Air Champion (2016)
- Arizona Manufacturers Council, Advocate of the Year (2015)
- Maricopa Association of Governments, Desert Peaks Public-Private Partnership Award, Winter No Burn Campaign (June 2014)
- Commonwealth of Kentucky, Kentucky Colonel (2012)
- Arizona Chamber of Commerce and Industry, Representative of the Year (2012)
- Arizona Technology Council, Tech Ten Legislator (2012)
- Arizona Game & Fish Commission, Advocate of the Year (2012)
- Arizona Capitol Times, Best House Republican (2012)
- Arizona Action for the Arts, Arts Hero Award (2012)
- Arizona Chapter of the Solid Waste Association of North America, Legislator of the Year (2012)
- The League of Arizona Cities and Towns, Hero of Cities and Towns (2012)

Amanda is all-in when it comes to protecting Arizona's unique environment through common sense public policy," said Eric Massey, Director of Sustainability at Arizona Public Service Company. "She is a quick study on the issues, collaborates to find potential solutions, and advocates for the most sustainable outcomes. Her focus on achieving shared value - accomplishing business objectives while simultaneously solving environmental and social challenges - makes her a unique and valued contributor on all State-wide policy issues.

- Selected by the American Council of Young Political Leaders to participate in an international educational exchange with Tunisia and Egypt (2012)
- Arizona Manufacturing Council, Representative of the Year (2011)
- Greater Phoenix Chamber of Commerce, Sentinel Award (2011)
- The League of Arizona Cities and Towns, Friend of Cities and Towns (2011)
- Arizona Technology Council, Tech Ten Legislator (2011)
- Mesa Prevention Alliance, Leadership Award (2011)
- Nominated by Leadership in the Arizona House of Representatives for the Emerging Leaders Program (2011)

Amanda comes from a 'salt of the earth' ranching family out of Colorado. She was raised loving God, Family, Friends, and Country. She received her Bachelor of Arts in Communication Studies, Public Relations at California State University, Sacramento, and her Master of Science Technology in Environmental Management from the Ira A. Fulton Schools of Engineering at Arizona State University. She has served and continues to serve on many boards and committees of organizations that help to structure a better way of life for all of industry and persons in our state, some of those include:

- Federal Land Study Committee, Governor's Appointee
- Maricopa County Commission on Trial Court Appointments, Public Member
- Maricopa County Air Quality Department's Clean Air Council
- Maricopa County Flood Control Department, Flood Stakeholder Group

"I have known Amanda Reeve for decades and she is a hard worker, generous member of our community and a passionate advocate for the residents of our state. No one in Arizona understands better than Amanda Reeve that if the business community, environmental advocates, and local, state and federal government work together collaboratively, we can create a healthier environment and expand our economy and create jobs at the same time. Thank you to the Arizona Mining Association for recognizing Amanda's incredible contributions to Arizona mining, our environment, and our way of life." – Bill Gates, Chairman of the Board of Supervisors





- Arizona Mining Association
 Air Quality Subcommittee, Vice Chair Environment Committee

 Government Affairs Committee
- Arizona Rock Products Association
 Associates Committee
 Community Relations Committee
 Environment Committee
 Government Affairs Committee, Vice-Chair
- Arizona Environmental Strategic Alliance, Advisory Council
- Arizona Naturopathic Physicians Board of Medical Examiners (2012-2014)
 Vice Chair Public Member
- American Council of Young Political Leaders, Alum Member
- The Green Chamber of Greater Phoenix (2013)
 Board Member
 Public Policy Member
- Arizona House of Representatives (2010-2012)
 Environment Committee, Chair (2011-2012)
 Energy and Natural Resources Committee (2010-2012)
 Higher Education and Innovation Reform Committee (2011-2012)

Military Affairs and Public Safety Committee (2010)
Transportation and Infrastructure Committee (2010)

- Arizona State Agency Fee Commission, Chair (2011-2012)
- Paradise Valley Village Planning Committee, City of Phoenix (2009-2010)

Amanda always presents a collaborative and cooperative approach to resolution on the toughest issues facing many industries, including all aspects of the mining industry in Arizona and in other areas of the US. She is a force to be reckoned with!

Lucas Narducci, Snell & Wilmer

AMA'S 1ST REVERSE EXPOWAS A HIT!



We are not surprised and based on the feedback from our members, the AMA 1st Reverse Expo was an incredible success! The event was held on Friday, July 14th at the Arizona Chamber of Commerce and Industry, in Phoenix. Many thanks to the Chamber for providing the space to us.

The day began with the AMA Board of Directors meeting and then the Reverse Expo kicked off with an "AMA 101" presentation from Executive Director, Steve Trussell. The presentation was well received as Steve covered everything that the AMA staff does including their work with regulatory agencies, policy at the Arizona State Legislature, Universities such as UArizona, and community relations opportunities. Steve also covered the work that goes on within our individual committees and subcommittees. Members commented, "It created a real 'WOW' factor to understand what goes on behind the scenes at the AMA."

AMA had 12 mines present with 16 tables for our 48 Suppliers and Consultants companies to visit. There were six 8-minute meetings for each company to visit with a mine of their choosing. Ernie Smith (AMA Supplier Committee Chair) did a fantastic job of making sure there were no



tables that had any downtimes. He helped by introducing new members to our mining companies, and presenting our mining companies to suppliers that may have not had the opportunity to speak with them in the past. The event wrapped up with a coffee and dessert bar and an additional chance for networking with everyone there.

Thank you to our Chairman of the Board, Francis McAllister, for supporting this great event and challenging all our mining companies to send out their elite to meet with our AMA Suppliers & Consultants for free.

We would like to thank our overall sponsors for the event, Sundt Construction, and Kary Environmental Services. They sponsored at the highest Platinum level which helped create a wonderful lunch and the dessert bar for everyone.

Also contributing at the Gold level were Aecon, Ames Construction, Ausenco, Brahma Group, Burns and McDonnell, Civil & Environmental Consultants, Inc., Clean Harbors, Commute with Enterprise, Eaton, Enterprise Car & Truck Rental, Geobrugg North America, LLC, Reuter Equipment Company, Stantec, Techline Mining, Trinity Consultants, Turner Mining Group, United Central Industrial Supply, WESCO Explosives, Working Athlete, Worley Group, Inc., and VEGA Americas.

Thank you also to the many other Supplier and Consultant companies who joined us for the day. We hope you had a fantastic time and made some great connections! The AMA highly values their supplier and consultant members and feels we should not do business without them.

Lastly, thank you to our mining companies who joined us on that hot July day. Without you all, this event could have never taken place. Many thanks to Arizona Sonoran Copper Company, ASARCO LLC-Grupo Mexico, BHP, Capstone Copper-Pinto Valley Mine, Elevation Gold (Golden Vertex-Moss Mine), Equinox Gold, Florence Copper-TASEKO, Freeport McMoRan, Hudbay Minerals-Copper World, KGHM, Inc.-Carlota Copper, and Resolution Copper.

All-in-all it was a very successful event. The AMA staff sat down for a post-event review and considered all the positive feedback received in order to maximize value in the years to come. Terrie Britton has since sent out a survey to all AMA participants in the event. Please make sure to fill out this brief survey. Your feedback is appreciated and helps to improve our performance. If you did not receive the survey, but you attended the event, please drop her an email at terrie@azmining.org or call 602.266.4416.



















From the fertilizer that grows the field, to the metals that go into the stadium seats and players' cleats, football as we know it can't happen without mining. To learn more about how mining adds to quality of life and possible mining careers, visit azmining.com.



AMA MEMBERS IN THE NEWS

BHP AND RIO TINTO INVITE COLLABORATION ON NEW TAILINGS TECHNOLOGIES

BHP and Rio Tinto are inviting expressions of interest from technology providers, equipment manufacturers, reagent suppliers, startups and research groups across the globe with innovative ideas and technologies to help improve tailings dewatering and management performance.

The global miners aim to jointly identify a portfolio of tailings management partners with whom they can work to accelerate the development of technologies that could increase water recovery and reduce potential safety risks and environmental footprints associated with tailings storage facilities.

The search for new partners comes as the two companies have now entered into a new agreement to extend their collaboration beyond the previously announced trial of a large-volume tailings filter unit at a BHP copper mine in Chile.

BHP Head of Sustainability Innovation Ingrid Oyarzun said: "There are so many innovative thinkers out there and we want to bring them in as partners to help us improve in this critical area for safety and sustainability of our operations."

Rio Tinto Chief Advisor Research and Development Saskia Duyvesteyn said: "We want to tap into the wealth of great ideas and innovations we know are out there and work together to find ways to improve safety and reduce the environmental footprint of tailings facilities."

Tailings management includes tailings dewatering and transport technologies, chemical amendment, and dust mitigation. Ideas and technologies considered may be market ready for mining, involve technologies previously applied in other industries, or may be original ideas at earliest stages of research and development.

ARIZONA SONORAN RELEASES FINAL PFS **DRILLING RESULTS**

Casa Grande, AZ and Toronto, ON, June 14, 2023 Arizona Sonoran Copper Company Inc. (TSX:ASCU | OTCQX:ASCUF) ("ASCU" or the "Company"), an emerging copper developer and near-term producer, today releases 8 infill holes from the Parks/Salyer Pre-Feasibility Study ("PFS") level drilling program and assays from the first infill to measured drill hole (ECP-148) for the Feasibility Study ("FS") (see FIGURES 1-17). The Company has now begun to generate an internal updated mineral resource and block model to support the declaration of first reserves in the pending step-up PFS by Q1 2024. Drilling continues with three rigs at Parks/Salyer, reducing drill spacing further to 125 ft (30 m) drill centres in preparation of the FS expected in the second half of 2024. READ MORE...bit.ly/3rDCrDE

RECENT INFILL DRILLING AT IVANHOE ELECTRIC'S SANTA CRUZ COPPER PROJECT IN ARIZONA IDENTIFIES NEW HIGH-GRADE SOLUBLE COPPER MINERALIZATION AND CONTINUES TO VALIDATE MINERAL RESOURCE **MODEL**

PHOENIX, ARIZONA - June 14, 2023 - Ivanhoe Electric Inc. (NYSE American: IE; TSX: IE) Executive Chairman Robert Friedland and President and Chief Executive Officer Taylor Melvin are pleased to provide an update on the drilling operations underway at the Santa Cruz Copper Project, located west of Casa Grande, Arizona. Ivanhoe Electric controls private surface land, the patented mineral rights and the associated water rights encompassing the entire Santa Cruz Project.

Mr. Friedland commented: "Our hardworking team of women and men have been making steady progress at the Santa Cruz Copper Project, uncovering high-grade copper mineralization in areas that were previously unknown and expanding our technical knowledge in underground areas near conceptual development. We remain on track to deliver an important Initial Assessment of the Project by the end of Q3 2023. This first detailed study will provide us with valuable insights into the economic potential at Santa Cruz, moving us closer to building a modern, underground copper mine in Arizona. By doing so, we are aiming not only to support United States supply chain independence for electric metals but also create quality jobs for Arizonans." READ MORE... bit.ly/43zMS8z



From the Office of the Governor Katie Hobbs

Governor Hobbs Announces Appointment Of Tribal Leaders To Governor's Water Policy Council

Phoenix, AZ— June 23, 2023. Governor Katie Hobbs announced the appointments of four Tribal officials to the Governor's Water Policy Council.

The Governor's Water Policy Council expands representation of Tribes across Arizona as part of Governor Hobbs' continuing commitment to partnering and engaging with Arizona's Indigenous communities. Tasked with developing policy recommendations to the Governor, the Council's work currently focuses on Assured Water Supply and Rural Groundwater policies.

The four appointments are:

- Chairwoman Amelia Flores, Colorado River Indian Tribes
- Governor Stephen Roe Lewis, Gila River Indian Community
- Chairman Robert Miguel, Ak-Chin Indian Community
- Bidtah Becker, Legal Counsel for Navajo Nation President Buu Nygren

The Governor's Water Policy Council also includes Maria Dadgar, executive director of the Inter Tribal Council of Arizona. Established in 1952, ITCA provides a united voice to its 21 member Tribes.

"I am pleased to announce the appointment of these esteemed tribal leaders to the Governor's Water Policy Council," said Governor Hobbs. "We need to have engagement and partnership with our tribal partners on all issues, especially water, as we work to build an Arizona for Everyone. I remain committed to bringing

tribes to the table as we work cooperatively on securing Arizona's water future."

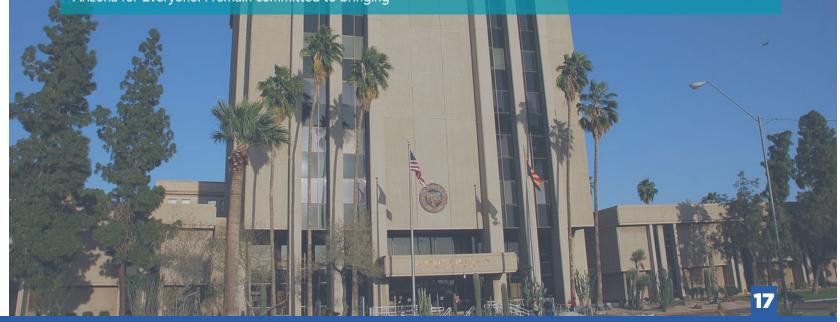
"Governor Hobbs has decided to give CRIT an important voice in shaping Arizona's water future. I look forward to serving on this Council as CRIT works with the state to assist in drought relief," said Chairwoman Flores. "I applaud Governor Hobbs' commitment to giving CRIT and other Arizona Tribal communities a seat at the table when it comes to modernizing Arizona's playbook for water conservation."

"I am deeply honored to serve on the Governor's Water Policy Council," said Governor Lewis. "Governor Hobbs is tackling the most important and difficult issues confronting our state, including protecting and preserving our precious long-term groundwater supplies, and I am humbled to be chosen to help her in this vital task. I hope to provide a tribal perspective on these issues and look forward to working with Governor Hobbs on the Council."

"I welcome Gov. Hobbs' continued commitment to engage with tribes and uplift our communities, and am ready to tackle the task of the Water Policy Council," said Chairman Miguel. "This is a great opportunity to work with the Hobbs Administration to mitigate the issues our communities face when it comes to water, and to present proactive solutions to secure Arizona's water future for generations to come."

"I am honored that President Nygren suggested my appointment and honored to be appointed to the Governor's Water Policy Council," said Bidtah Becker. "I appreciate the Governor's vision in creating the Council, including tribes, and bringing water to the forefront of policy discussions in Arizona — water is life."

Information on the Governor's Water Policy Council can be found at the Arizona Department of Water Resources website: https://www.azwater.gov/gwpc



University of Arizona Hires for a Key Role

In April, former director of the Arizona Department of Environmental Quality, Misael Cabrera began his role as the Director of the Mining School at the University of Arizona. "This news was very well received by both the Arizona Rock Products and Arizona Mining Association's membership as Director Cabrera has a proven track record of success in both the private and public sectors" commented Executive Director Steve Trussell.

Arizona is a Top Mining Region

With nearby ore deposits, operating mines and technology companies, the university is located in the heart of mining country. This rich ecosystem in one of the most attractive mining regions in the state, nation, possibly the world providing unparalleled partnership opportunities for learning and research. Additionally, given that Tucson is near Arizona's southern border, the university has a long-standing tradition of collaborating in Latin America and in other parts of the world.

Role of the Director of the School of Mining and Mineral Resources

The school director at the University of Arizona is responsible for leading efforts to connect resources and programs across campus; develop and maintain a holistic, integrated educational experience for lifelong learning; provide a talent pool for the workforce, cultivate partnerships with industry and government agencies; and stimulate collaborative research vital to the industry.

The director of the school reports to the Dean David Hahn of the College of Engineering and Dean Carmala Garzione of the College of Science. He will be responsible for leading a diverse group of highly qualified faculty, staff and students dedicated to meeting the aggregate & mineral resource needs of society.

Misael's Professional and Personal Qualities

Director Cabrera possesses a broad understanding of mining and mineral resources and related issues including sustainable development and security of supply. He is an exceptional leader with the proven ability to develop and articulate a clear, compelling vision and motivate and inspire others. Further, he is highly collaborative and possesses strong interpersonal skills as well as intellectual humility. Central to his personal success is his ability to bring together people, influence others and build consensus. "We are affirmed he is the right choice for this important position", commented Trussell.

Director Cabrera's Vision Statement for the Mining School

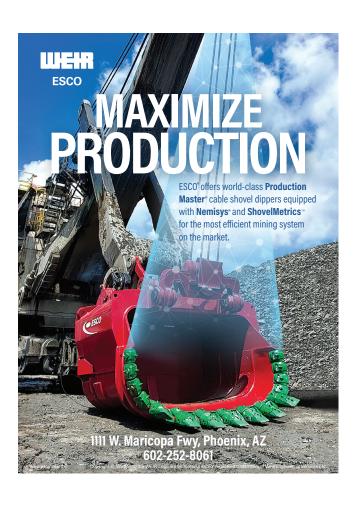
To be the global destination for educational excellence in mining and mineral resources

For an increasing number of diverse undergraduate, graduate, and continuing-education students, and faculty

By integrating a differentiated and interdisciplinary learning and research experience

That catalyzes economically, socially, and environmentally sustainable mineral resources for generations to come.

Director Cabrera would appreciate hearing from the mining industry with any input or ideas. Feel free to reach out to him at misaelcabrera@arizona.edu.





ASARCO

ASARCO MINERAL DISCOVERY CENTER & MINE TOURS



COME VISIT AMODERN MINE



COPPER!

It's a primary metal in the:

- hospital where you were born
- electricity in your home
- tools that farm your food
- transportation that powers your next adventure





FEDERAL NEWS

THE NINTH CIRCUIT OVERTURNS CRITICAL HABITAT DESIGNATED FOR THE FOR THE JAGUAR IN SOUTHERN ARIZONA

Norman D. James, Fennemore Craig, P.C. May 31, 2023

In an important decision concerning the designation of critical habitat, the Ninth Circuit Court of Appeals held that critical habitat designated for the jaguar in southern Arizona violated the Endangered Species Act ("ESA"), and directed that the critical habitat be vacated. Center for Biological Diversity v. U.S. Fish & Wildlife Service, No. 20-15664 (May 17, 2023). A copy of the decision can be obtained through the Ninth Circuit's website at https://www.ca9.uscourts.gov/opinions/. Circuit Judge Forrest authored the opinion, and was joined by Circuit Judge Ikuta; Circuit Judge H.A. Thomas dissented.

A. General Background

Under the ESA, when the U.S. Fish and Wildlife Service ("FWS") lists a species as endangered or threatened, the agency is normally required to designate the species' critical habitat. The definition of critical habitat in the ESA distinguishes between occupied and unoccupied habitat areas. Areas that are "occupied" at the time of listing may be designated as critical habitat if they contain "physical or biological features (I) essential to the conservation of the species and (II) which may require special management considerations or protection." 16 U.S.C. § 1532(5)(A)(i). Unoccupied areas may be designated as critical habitat "upon a determination . . . that such areas are essential for the conservation of the species." 16 U.S.C. § 1532(5)(A)(ii). The standard for designating unoccupied areas is more demanding than for occupied areas. E.g., Ariz. Cattle Growers' Ass'n v. Salazar, 606 F.3d 1160, 1163 (9th Cir. 2010).

B. Jaguar Listing and Critical Habitat Designation
The jaguar (*Panthera onca*) is the largest species of cat
native to the Western Hemisphere. The species' range
extends from Mexico south through Central America
and much of South America, and is estimated to contain
some 3.4 million square miles. The species' population
is estimated to be 30,000 animals, although some recent
population estimates are much higher. Jaguars are rarely
detected in the southwestern United States, which lies
at the extreme northern edge of the species' range. The
closest breeding population occurs in Sonora, Mexico,
about 130 miles south of the international border.

The jaguar was originally listed in 1972 as a foreign endangered species under an act that preceded the ESA. In 1997, the FWS listed the species as endangered in the United States, but declined to designate critical habitat, concluding that the primary threat to the species is the taking of individual animals and designating critical habitat would not be prudent.

Following litigation in federal court, the FWS changed course and in 2009 determined that the designation of critical habitat would be "beneficial" to the species' conservation. The agency convened a recovery team which issued a Recovery Outline for the jaguar in 2012. The Recovery Outline divided the jaguar's range into two "recovery units": the Northwest Recovery Unit ("NRU") and the Pan American Recovery Unit ("PARU"). A map of the NRU is attached. The NRU focused on two "core areas" in northwestern Mexico and contained a very small portion of the species' total population – about 600 animals. A small portion of the NRU extended into Arizona and New Mexico, and was included in a "secondary" recovery area. Almost all jaguars and jaguar habitat are found in the PARU.

Relying on the Recovery Outline, in 2012 the FWS published a proposed rule designating 838,000 acres as critical habitat for the jaguar in southern Arizona and New Mexico. The proposed critical habitat included the Santa Rita Mountains southeast of Tucson, where Rosemont Copper Company ("Rosemont") was permitting an open pit copper mine and related mineral processing facilities. The proposed critical habitat covered over half of the project footprint, including the pit location. Rosemont submitted comments opposing the designation on scientific grounds. The company also requested that the northern Santa Rita Mountains be excluded from the designation under Section 4(b)(2) of the ESA, 16 U.S.C. § 1533(b)(2), based on the adverse economic impact of specifying critical habitat over the mine site and lack of conservation benefit to the jaguar species.

In 2014, the FWS published its final rule, designating 764,207 acres in southern Arizona and New Mexico as critical habitat for the jaguar, including the Santa Rita Mountains. A map of the critical habitat designation is attached. The Santa Rita Mountains are part of critical habitat Unit 3, also called the Patagonia Unit. The agency determined that the principal critical habitat units were occupied at the time of the jaguar's initial listing in 1972 based on a small number of sightings of transient male jaguars that wandered into the United States from Mexico. But the agency also determined, in the alternative, that the principal critical habitat units qualified as unoccupied critical habitat. The agency's reasoning again relied on the prior jaguar sightings and the presence of suitable habitat for jaguars, which would contribute the jaguar's persistence in the NRU and possibly allow range expansion to occur.

The FWS elected not to exclude the area containing

Rosemont's mining project under Section 4(b)(2). The FWS explained that Section 7 consultation had been completed on the effects of the Rosemont project in 2013, and that the agency had determined that the project was not likely to result in the destruction or adverse modification of critical habitat. The FWS also believed that any economic impacts incurred by Rosemont would result from the jaguar's listing, and not from the designation of critical habitat, because, at that time, a male jaguar had been photographed in the Santa Rita Mountains. Based on that detection, the agency reasoned that the Section 7 "jeopardy" standard would apply to the area.

C. The District Court Litigation

In 2017, the Center for Biological Diversity ("Center") filed a lawsuit challenging the FWS's biological opinions regarding Rosemont's mining project (a second opinion was issued in 2016), including the determination that the project would not adversely modify jaguar critical habitat. Rosemont intervened as a defendant and asserted a crossclaim against the FWS, alleging that the agency violated the ESA by designating the Santa Rita Mountains as critical habitat. Rosemont also challenged the designation of an additional 12,000 acres of land located between the northern Santa Rita Mountains and the Whetstone Mountains, called Subunit 4b, as a corridor for jaguar movement.

The district court agreed with the Center and set aside the FWS's determination that Rosemont's mining project would not adversely modify the critical habitat for the jaguar. See Ctr. for Biological Diversity v. U.S. Fish and Wildlife Serv., 441 F. Supp. 3d 843 (D. Ariz. 2020). On Rosemont's crossclaim, the district court agreed with Rosemont that the Santa Rita Mountains were not occupied when the jaguar was listed based on the lack of evidence of regular use by jaguars. But the district court went on to hold that the FWS properly designated Unit 3 and Subunit 4b as unoccupied critical habitat.

Rosemont appealed from the denial of its crossclaim. A majority of the Ninth Circuit panel reversed the judgment in favor of the FWS and the Center, and held that the agency's designation of Unit 3 and Subunit 4b as unoccupied critical habitat violated the ESA. Circuit Judge H.A. Thomas dissented.

D.The Ninth Circuit's Ruling 1. The Majority's Opinion

The majority initially addressed Rosemont's argument that the FWS failed to use the correct standard in designating critical habitat. Under the definition of critical habitat, both occupied and unoccupied critical habitat areas must be "essential" to the species' conservation. The majority held that the accepted meaning of "essential" and the relevant surrounding terms in the ESA establish that for an area to be "essential" for the conservation of a species, it must be indispensable or necessary for the survival and recovery of the species, not merely beneficial or helpful. In other words, without the area's designation as critical habitat, the species cannot be brought to the point where the protections provided by the ESA are no longer required. Ctr. for Biological Diversity, Slip Op. at 19-24.

The majority then turned to the specific grounds given by the FWS for designating Unit 3 and Subunit 4b as critical habitat. As discussed above, the FWS designated Unit 3 as occupied critical habitat and, alternatively, as unoccupied critical habitat.

Consequently, the majority evaluated both agency findings for Unit 3.

The majority noted that the Ninth Circuit previously construed "occupied" to mean the species "uses [the area] with sufficient regularity that it is likely to be present during any reasonable span of time." Slip Op. at 24 (quoting *Ariz. Cattle Growers*, 606 F.3d at 1165). Although a male jaguar had been photographed in 2012 and 2013 in the Santa Rita Mountains, those sightings were outside the statutory timeframe and therefore irrelevant. At the time of listing, one confirmed jaguar sighting was recorded in a different mountain range closer to the international border. Consequently, the majority concluded that there was insufficient evidence to support a finding that the Santa Rita Mountains were occupied at the time of listing and affirmed the district court's holding that the agency's occupancy finding was arbitrary and capricious. Slip Op. 24-27.

Next, the majority addressed the FWS's unoccupied critical habitat findings for Unit 3 and Subunit 4b. First, it considered Rosemont's argument that the FWS failed to follow the regulations in effect when the critical habitat was designated. The regulations allowed the designation of areas outside the geographic area occupied by the species at the time of listing only when a designation limited to occupied areas would be inadequate to conserve the species. See 50 C.F.R. § 424(e) (2012). The court agreed that this requirement applied to the designation of critical habitat for the jaguar, and held that the FWS failed to explain how the designation complied with it, following the Tenth Circuit's holding in New Mexico Farm and Livestock Bureau v. United States, 952 F.3d 1216, 1227-31 (10th Cir. 2020) (holding that the designation of jaguar critical habitat in New Mexico was arbitrary and capricious for the same reason). Slip Op. 27-34.

The majority also considered whether the FWS's rationale for designating Unit 3 as unoccupied critical habitat complied with the ESA. The FWS asserted in the final rule that Unit 3 is essential to the conservation of the jaguar because a male jaguar was sighted there in 2012 and 2013, the area contains suitable jaguar habitat, and the area contributes to "normal demographic function and possible range expansion of the [NRU]." Slip Op. at 35. The majority addressed each of these reasons and determined that they lacked merit. It described the evidence of jaguar use as "thin," given that only one transient male jaguar had been sighted in the Santa Rita Mountains. It also held that the mere presence of suitable habitat is insufficient to demonstrate that an area is essential to conserving the species. Finally, "and most important," the majority noted that "there is nothing in the Final Rule establishing that the jaguar will be unable to recover or survive if Unit 3 is not designated as critical habitat." Slip Op. at 38. The majority quoted a statement from the final rule (which was cited the Recovery Outline) indicating that recovery of the jaguar will depend primarily on activities occurring outside the United States.

The majority then considered the FWS's justification for designating Subunit 4b as unoccupied critical habitat. The agency contended that this travel corridor was essential for the conservation of the jaguar because it would contribute to the species' persistence by providing connectivity to jaguar populations in Mexico. The court concluded that

this connectivity function and the corridor's favorable ecological characteristics do not make it necessary or indispensable for jaguar conservation. The court noted the "complete absence of evidence" that jaguars have ever used Subunit 4b or were likely do so in the future. The court also explained that while connectivity between the United States and Mexico can aid in conservation, the FWS must demonstrate that Subunit 4b is essential to conservation of the species, and there was no information on the impact of not protecting Subunit 4b in the record. Slip Op. at 40-45.

The last issue addressed by the majority was whether the district court was required to remand the critical habitat designation to the agency for reconsideration of the Section 4(b)(2) economic impact analysis, given that court's ruling on the Center's challenges to the biological opinion. The majority held that Rosemont did not waive this issue because it could not have been raised until the district court had ruled favorably on the Center's challenges. But the majority ultimately ruled that directing the FWS to reconsider its economic impact analysis would be premature because the critical habitat designations challenged by Rosemont violated the ESA and must be vacated.

2. The Dissenting Opinion

The dissenting judge would have affirmed the district court and upheld the critical habitat designations. Judge Thomas would have applied a much more relaxed standard that would treat habitat as "essential for the conservation of the species" even if other habitat is more important to the species' recovery. Of particular importance in this case was that virtually all of the jaguar's core habitat is found in foreign countries. Judge Thomas believed that conservation efforts for species should not be left to other countries. Slip Op. at 53-55, 59-60.

Judge Thomas also believed that the presence of the jaguar's key habitat features, combined with the sighting of a male jaguar in 2012 and 2013, was sufficient to support the designation of Unit 3 as unoccupied critical habitat. With regard to Subunit 4b, she believed that FWS was not required to provide evidence that the travel corridor would be used by transient jaguars. It was enough that the species would benefit from connectivity between its core populations in Mexico and its critical habitat in the United States and that the corridor contained features conducive to that purpose. Slip Op. at 56-58. Finally, Judge Thomas disagreed with the majority's reading of the FWS's regulations in effect when the designation took place, and would have concluded that Unit 3 was occupied based on the sighting of a jaguar in 2012 and 2013. Slip Op. at 58-59.

E. Next Actions

The Ninth Circuit decision was issued on May 17, 2023. The deadline for filing a petition for panel rehearing or for rehearing en banc is July 1, 2023. Given the thoroughness of the majority opinion and the absence of any conflicting precedent, neither petition, if filed,

appears likely to be successful.

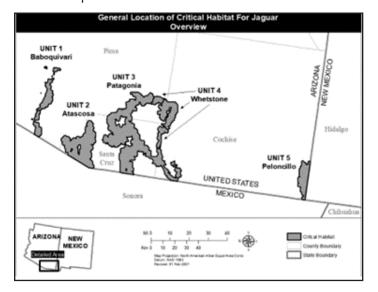
The case will then be remanded to the district court. The majority opinion directed the district court to return the case to the FWS for further proceedings consistent with the opinion. In similar circumstances, the FWS issued a final rule that removed Unit 6 and the portion of Unit 5 found in New Mexico from the jaguar critical habitat designation. See Revision of the Critical Habitat Designation for the Jaguar in Compliance With a Court Order, 86 Fed. Reg. 38570 (July 22, 2021). In this case, a similar process should take place removing Unit 3 and Subunit 4b from critical habitat.

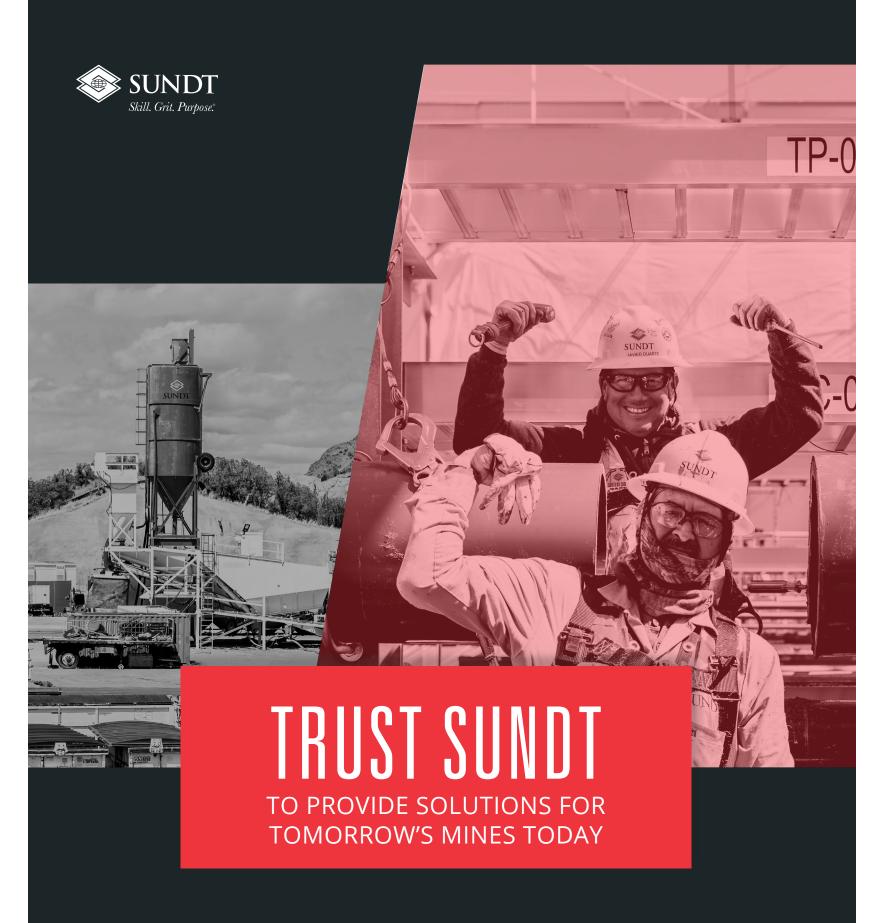
Attachments

1. Map of Northwest Jaguar Recovery Unit



Map Critical Habitat in Arizona







GBR - Special Reports on the Western USA Mining Industry – 2023

Interview with Steve Trussell, Executive Director, Arizona Mining Association

WHAT IS THE ROLE AND EVOLUTION OF AMA IN SUPPORTING ARIZONA'S MINING INDUSTRY?

We are interested in maintaining the viability of the industry in three ways, community relations, regulatory work, and public policy. Therefore, we can keep Arizona the number one producer of non-fuel minerals in the nation and in the top ten jurisdictions in the world for attracting investment in mining.

WHAT MAKES ARIZONA AN ADVANTAGEOUS JURISDICTION TO EXPLORE AND DEVELOP A MINE?

Arizona has a favorable economic, political, and regulatory climate. People know we are the "copper state" and generally understand mining's importance and the need for mined materials. Arizona ranks first in mineral potential in the U.S. and has a policy perception ranking that is also favorable to mining. On the other hand, our state agencies are good to work with and do pre-permitting work to efficiently issue key authorizations.

WHAT IS ARIZONA'S MINING ECONOMIC IMPACT AND CONTRIBUTION?

Arizona mining production was over \$10 billion and ranked 1st in the nation in 2021 & 2022. The hard rock mining sector is a \$14.2 billion dollar industry and combined with the aggregate industry is a combined \$20 billion dollar impact on the state's economy. According to the U.S. Bureau of Labor Statistics the mining industry output per worker is \$545,100 which ranks third behind the aerospace and semi-conductor industry. Mining employs approximately 27,000 directly and supports another almost 75,000 jobs indirectly. The contributions to state tax revenue are also quite substantial.

WHAT ARE THE BIGGEST CHALLENGES THAT MINERS IN ARIZONA FACE TODAY?

University mining program enrollment has been down. College and high school students do not see mining as a career option not because they would not consider mining, they simply do not know enough about it. Education will go a long way towards attracting employees. That said, industry and academia need to quickly adapt to attract the next generation of talent. Universities need to continue to develop real time undergraduate, graduate, and professional programs for the industry.

Further, academia, industry, government, and NGOs need to collaborate to solve real world problems connecting students with opportunities to help. The good news for Arizona is the University of Arizona had a mining program that has been elevated to a new mining school with an incredibly competent,

capable, and dynamic director, Misael Cabrera. We are affirmed we will see significant changes at the university level. They are also engaged with the K-12 system through demonstrations, workshops, and engagement to recruit and attract future talent, as well. A year ago, the Arizona Mining Association also hired Stephanie Jensen, our Director of Education. Stephanie has done an excellent job analyzing this challenge and will be focused on rebranding the industry for young people.

WHAT ARE SOME INTERESTING WAYS IN WHICH TECHNOLOGY IS PERMEATING THE MINING INDUSTRY IN ARIZONA?

There are so many examples in the realm of remote sensing, remediation, water, and geotechnical work. The research at the University of Arizona has been unparalleled in addressing the key issues of the mining industry. From environmental stewardship to the safety of our miners, the tools the university is developing through partnership with industry will be a significant contribution to a safer more sustainable industry.

WHAT ARE SOME IMPORTANT CATALYSTS ON THE HORIZON FOR ARIZONA'S MINING INDUSTRY?

Demand for materials is rising exponentially with emerging technology and clean energy solutions. There is tremendous pressure on supply. Where these materials are mined and refined is going to matter from a strategic, safety, environmental and economic standpoint. Reaching new audiences, communicating why minerals are vital to our future, how we obtain them responsibly, and how everyone can be a part of the solution is more important than ever. International, Federal, state, and local policy changes are needed immediately. This will take time and I am not confident it can happen quickly enough to meet the need.

WHAT ARE SOME POLICY DEVELOPMENTS ENCOURAGING A COHESIVE NORTH AMERICAN MINERAL SUPPLY CHAIN?

There have been significant congressional efforts to improve or alleviate supply chain issues. Members of our Arizona delegation clearly understand the issue, but there are too many variables and factors politically and otherwise of note that make that effort exceedingly difficult.

WHAT ARE YOUR MAIN GOALS FOR YOUR PRESIDENCY?

Looking at global competitiveness for reserves, it is important that the US and Arizona mine and refine minerals domestically. Even though we are a high-ranking jurisdiction in terms of friendliness to investment and mining, it still takes 10 or 12 years to permit new mining operations. We are looking at opportunities, where appropriate, to get mines online expeditiously to meet increasing demand. This will include permitting reform, bringing older mining sites back into production and looking at mining waste, which can hold significant opportunity.

Arizona Mining Association's goal is to keep Arizona and the US competitive. Arizona should continue to lead the nations as the number one producer of nonfuel minerals and we want to be able to continue to provide the quality of life that people enjoy with their phones, computers, electric vehicles, and technological innovations yet to come, but do it in a very responsible way in terms of environmental health and safety. We will do this in part through our relationships with K-12 schools, vocational education, and higher education, improving our messaging and attracting the highly qualified workforce of tomorrow.



Kary Environmental Services Inc's Fleet Services maintains a fleet of approximately 130 trucks and trailers. Our multiple service offerings, capabilities, and transportation modes enable us to transport, or arrange transportation for, hazardous, non-Hazardous, liquid, and solid wastes for our diversified customer base throughout the Southwest using our equipment, information technology, and qualified driving personnel. We are committed to providing our customers with a wide range of trucking and logistics services and continuing to invest considerable resources toward developing a range of solutions for our customers across multiple service offerings and transportation modes. Our overall objective is to provide services that, when combined, lead the industry in terms of margin and growth, while providing efficient and cost-effective solutions for our customers.







ARIZONA MINING - MEMBER COMPANY HIGHLIGHTS

FLORENCE COPPER

Mayor Walter, Tours Florence Copper site and Issues a Proclamation Recognizing the Role of Copper in Everyday Life and Names June 30, 2023,



FREEPORT MCMORAN – MIAMI

Miami Employees Deliver Real-World **Experience to Welding Students**

When the Cobre Valley Institute of Technology needed a pair of substitute welding instructors to quickly take over its 18-month certification program, two welding aces from Freeport-McMoRan's Miami smelter immediately stepped up to teach night classes.

What the school hadn't counted on was the temporary bailout would lead to nothing less than a transformation of the institute's welding program as a result of the commitment and efforts of those two fill-ins - Miami Senior Technical Instructors Ernie Baca and John Freeman.

"These two instructors brought real-world experience to our students and a much-needed emphasis on safety practices," said Michael O'Neal, Superintendent, Cobre Valley Institute of Technology. "Ernie and John both brought a passion for what they do unlike anything I have witnessed before in my 28 years of public education."

This passion and expertise brought about change in a way that had never previously happened, as inspired students requested the addition of summer classes to the program taught at the Eastern Arizona College-Gila Pueblo Campus.

"Eleven of our 18 current welding students requested to be enrolled in summer welding classes being taught by both Ernie and John," O'Neal said. "I have never experienced students having such a strong desire to take summer school courses."

Freeman said he was struck by how quick positive attention has come to the new, improved program by the local community.

"I think the students and their parents are very happy and see the value in it, and the college and the community are happy and see value in it, and so does Freeport," Freeman said. "That's what we hoped people would see when Ernie and I started this, and now, we want to see it grow. We want to grow this partnership, and we want to see Freeport continue to play a big role in the community."

Cutline: Welding instructor Ernie Baca gives feedback to welding student Gage Kephart at the night course he teaches after wrapping up his day job as Freeport's Senior Technical Facilitator Instructor-Miami.



Cutline: Standing in front of the welding bays they're helping upgrade at the Cobre Valley Institute of Technology in Globe, Ariz., are Freeport's Ernie Baca, Senior Technical Facilitator Instructor-Miami, and John Freeman, Senior Technical Instructor-Miami.



Cutline: Student Angel Hernandez works on a weld at the Cobre Valley Institute of Technology in Miami.





Cutline: Student Robert Zache, was recently hired as a Diagnostic Mechanic at Freeport-McMoRan's Miami Smelter.

CONSULTANT

SP&T LIGHT

Good Business Means More Women in Mining

"Without gender parity, companies miss out on a considerable competitive advantage," writes Jim Norine.

AUSENCO Jim Norine, Vice
President, Southwestern
USA, Ausenco

As traditionally male-dominated industries have moved closer to gender parity over the last hundred years, mining continues to struggle to attract and retain women, both in the field and in corporate leadership. In my role as Director of Minerals & Metals at our growing Tucson office, I make sure to try and change the status quo deliberately and consistently.

It was after delivering a major EPCM project in Mexico that I became acutely aware of the distinct difference in the number

of female colleagues and senior leaders in the US mining industry. I looked at what we were doing stateside, and it wasn't even close to the number of women in mining in Mexico. That lodged into my psyche as something I care about and something I would work to change.

Without gender parity, we miss out on a considerable competitive advantage. A diverse workforce – whether in the project delivery team or in the C-Suite – has been shown to improve company culture, performance and returns.

Women bring a different perspective, and this is very important. I find women tend to be more organized and more detail-oriented than men, and I believe it's imperative to have a balance of both men and women in any situation bringing forward their ideas.

This isn't just a hunch; research backs this up. A recent study by mining giant BHP showed that teams comprising both men and women were more productive, more engaged and operated more safely. Diverse teams delivered an average 67 % lower Total Recordable Injury Frequency and saw company culture improve, with a 21% greater sense of company pride. Similarly, research from McKinsey has shown that companies with a critical mass of women executives are more likely to earn above-average profitability.

continued.

So, Where Are the Women?

In mining specifically, much of the problem stems from a lack of women in the educational streams leading to mining careers, both in the labor force and in leadership. Engineering schools are only now seeing female enrollment approach the levels of male students, but that progress is considerably slower in the fields of engineering that feed mining specifically. Process and mining engineers still skew overwhelmingly male, with very small female representation in organizations like the Society for Mining, Metallurgy, and Exploration (SME).

Unfortunately, I've met very few women in my local SME student chapter. I find this telling. If more women are going into engineering, they're not going into the mining industry.

An engineering background is critical to building credibility as a leader in the industry, so this under-representation at the university level is devastating. In the US especially, we see that mining is becoming much more of a niche industry, further reducing the talent pool from the outset. There are fewer actual mining programs available today than in the past - probably less than 20.

And Then Women Leave

Retention is also a significant challenge, with women leaving engineering and mining at a higher rate than men on average. With a lack of community and mentorship within their organization, many women see little opportunity to build their skills and progress with their male counterparts. Lingering inequalities in salaries and promotion opportunities soon have them looking outside the industry for advancement. In addition, if support and flexible hours for parents and caregivers (predominantly women) are not available, burnout and downshifting of careers occurs.

What Can We Do?

Other countries may be further along the path to diversity, and we can learn from the organizations that have seen their numbers improve. Mentorship is critical to retaining talent and can help build a sense of community in an industry that still skews strongly male. The more women in a company who can support and encourage the women around them, the more women feel like they belong.

Attracting female talent early in their careers remains the biggest opportunity. At Ausenco, we start building relationships with female candidates while they're still in university - through co-ops, internships and other work placements. Our Women at Ausenco employee resource group was established to raise the visibility of women across the organization, including networking communities and mentoring. It strives to amplify the profile of women in the organization, foster connections among women from different regions, and help women expand their impact.

I am encouraged to see things changing, especially as I look at my counterparts at the director and vice president level; it's getting more and more diverse. We still have a ways to go but I think that's the "trickle up" you'll see. Those are our next C-Suite people.

Opening Up

Broadening opportunities means actively looking for female

candidates for positions outside of the typical female roles. And often change is led by a trailblazer.

An Australian friend of mine worked as a blast engineer in Indonesia. She was only one of five women out of 2,000 operators on site. She helped set a precedent and is leading the way for other women by showing everyone that this is a job that both women and men can do.

Another strategy is to look outside the industry for people early in their careers who can transition their skills from a similar industry to mining. My latest hire was a project engineer from the construction industry where she'd been in oil and gas. I believe there are always opportunities to work with people from other industries and retool their skill sets if they are interested and see a rewarding career in their future.

There is still a lot of work to be done before we see parity. I still find myself in meetings full of men. But this only serves to remind me of the changes we need to make because it is the right thing to do. It is wrong to gate-keep an entire industry away from 50% of the potential workforce.

One of the things we talk about at Ausenco is "Finding A Better Way." Women are going to get to that better way a little bit differently than a male mindset would. And that's exactly what we need as a company and as an industry.





This article was first published in Mexico Business News. Reprinted with permission.

AMA Supplier Member

SP&T LIGHT

TURNER MINING GROUP





For years, blue-collar industries and the value they bring have often gone unnoticed. Until six years ago, when a movement began across the country and social media helped educate the masses about the

necessities of these trades, the livelihoods they support, and the careers they provide.

Turner Mining Group contributed to the awareness and quickly gained traction as they built a company that stood for "changing the game" on how people were treated in the industry. Founded with a purpose, the company set out to make life better for the mining industry. Fast forward to today, Turner has deployed thousands of next generation and veteranskilled workers nationwide – including the workforce operating in Kingman, Arizona.

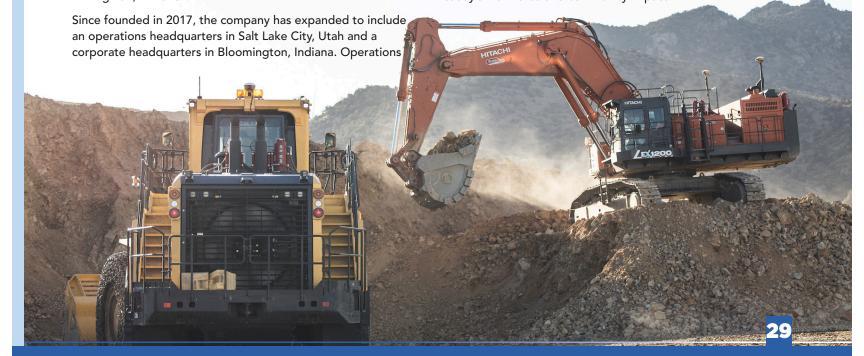
in Kingman focus on the Mineral Park Mine, owned by Origin Mining Company. To provide opportunities to Arizona residents, Turner Mining Group has hired 80 percent of the crew locally.

People Focused

Turner's team consists of people with diverse skill sets – spanning from heavy civil to mining. Leaders with decades of experience lead the charge, passing down the knowledge they've gained throughout their careers. Turner believes that training and preparing the next generation is one way they can live up to their mission of making life better for the mining industry. With good people as the foundation, mining can continue to be a thriving, sustainable industry.

Turner Mining Group Community

Turner Mining Group is a team of experienced mining professionals providing a full spectrum of services ranging from contract mining to leach pad construction. With experience leading the charge, they aim to be a true mining partner across North America. While the company offers a diverse set of services, their biggest differentiator is their investment in today's workforce and community impact.



Florence Copper and Local Nonprofit Make a Difference for Florence

Florence Copper teamed up with Florence, Arizona-based environmental nonprofit Future Forward Foundation to give back during Florence Makes a Difference Day back in October 2022.

Florence Makes a Difference Day is organized by the Town of Florence to promote community improvement projects that enhance the lives of the citizens of Florence and surrounding communities. During Fall 2022's Florence Makes a Difference Day, Florence Copper and the Future Forward Foundation collaborated on a project to beautify a local highway using tall pot trees.



The Florence Copper Community Foundation, Florence Copper's charitable foundation that supports projects benefiting Florence and Pinal County, recently provided a \$1,500 grant to the Future Forward Foundation to help fund the cultivation of tall pot trees. On October 22, volunteers

from Florence Copper planted some of these trees on Florence Copper land bordering Hunt Highway.

Tall pot trees are unique because, after a few months of



dedicated care, they grow without needing to be watered. Aside from their aesthetic appeal, the trees can provide habitat for birds, squirrels, pollinators, and other wildlife.

Located in Florence, Arizona, Florence Copper is an innovative and proven

in-situ copper recovery (ISCR) project that is in advanced stages of permitting. The company recently completed a successful public

comment period for its draft Underground Injection Control (UIC) permit, the last permit required to advance to commercial operations, during which over 98% of comments submitted were in support of the project.





"Since 2014, the

Florence Copper Community Foundation has awarded more than \$77,000 in grants to local nonprofits," said Sophie Dessart, Florence Copper Manager of Communications & Public Affairs. "We are thrilled to magnify this impact and give back through Florence Makes a Difference Day and look forward to enhancing our positive impact on local communities as we advance toward commercial production."

Grupo Mexico ASARCO presents at the Ambos Nogales Binational Workforce Development Summit

The Ambos Nogales Binational Workforce Development Summit kicked off discussions about the critical need for workforce development to support the growth in the Arizona and Sonora regions, specifically in mining and "future" technologies. Grupo Mexico ASARCO presented its current and future workforce needs to the group and its workforce development strategy that offers multiple collaborative partnership opportunities with industry and cross-industry organizations.

Federal and local government leaders, educators, and industry from both countries attended the event. A coalition will further navigate the issue.



COMMUNITY OUTREACH

Grupo Mexico ASARCO-Sponsored Mining Opportunities Career Fair

ASARCO worked with its local school leaders to launch a Mining Opportunities Career Fair at the Hayden/Winkelman High School in Winkelman, Arizona—the event aimed to empower students by presenting the global opportunities available to them in their local community.

Capstone Copper, Resolution Copper, Freeport McMoRan, Caterpillar, Empire CAT, UA School of Mining and Mineral Resources, and CVIT were part of the nine organizations and 21 representatives that joined ASARCO to support the initiative. Students rotated each classroom for 20-minute presentations throughout the day. Over 120 kids participated from 8th to 12th grade.

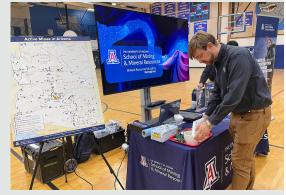












ASARCO Partners with the U of A San Xavier Underground Mine to Host the Women In Mining Conference

ASARCO partnered with the U of A San Xavier Mine to host the Annual Women in Mining Conference in Tucson, Arizona, back in April. This tour combination provided an open pit and underground experience to 40 attendees.

The ASARCO tour featured eight talented women from its team who shared their mining journeys. Their inspirational stories ignited the crowd, and in response, an exciting showand-tell from the attendees who had engineered different parts of Mission Mine or similar operations complemented the tour.

ASARCO would like to thank the Women in Mining planners for including the ASARCO Mineral Discovery Center & Mine Tours (public offering) as part of its event content and to congratulate everyone involved on executing a fantastic event!













ARIZONA IINING ASSOCIATION

MINING MATTERS

TYSON NANSEL, RESOLUTION COPPER

"I am proud of the work Resolution Copper is doing to be one of the most water-efficient mines in Arizona, keeping the community and employees safe, and reclaiming the historic tailings from the Magma Mine."

READ MORE AT: HTTPS://WWW.AZMINING.COM/BLOG/



