

# 2019-2020 SME Chapter Activities

## Park City Miner's Day

Each year the Rotary Club and the Utah Section of SME put on a Miner's Day event in Park City, UT, to celebrate the history of the area. This year a hand full of students met up at the event. They enjoyed the parade in the morning and helped with the drilling and mucking competition in the afternoon. Students volunteered to be judges and timers for the event. Miners Day is an annual event that the University of Utah Chapter looks forward to helping with each year.



## Skeet Shoot Fundraiser

In the past, the chapter's activities have been limited due to funding. This year the University of Utah SME Student Chapter set out to try a new way of raising money. The executive committee realized that those who work in the Utah mining industry would likely enjoy a clay shoot. The goal was to clear \$10,000. We scheduled the clay shoot for September 20th and watched as the Utah mining industry jumped at the opportunity to participate and support in any way possible. I (Chase Carroll) didn't sleep for many nights because I was so stressed about getting enough teams together to make it a worthwhile event. It was also very stressful because we didn't pull the trigger on planning the event until the end of July, which left us a month and a half to get the word out and organize the shoot. Many companies became event sponsors. Ames Construction sponsored the clays, Granite Construction the lunch, Utah American Energy the drinks/snacks, and FLSmidth sponsored the clubhouse. We also had other individuals give very generous donations. In total, we had 60 industry professionals, and 15 students participate. The University of Utah Student Chapter was able to exceed its goal and raised over \$10,500 thanks to the local mining industry





# Late Night Study Groups

There were too many late-night study groups to count this year. We had a large group of seniors, and we all got through our last year with a lot of Chinese food and energy drinks.



# The Honerine Mine Exploration

The U of U SME Chapter had the privilege of driving an hour out of Salt Lake City and exploring an old mine called the Honerine. Our professor Dr. Nelson gave us a history lesson on the mine and the district before we went and explored the old audits. The U of U Chapter has received the rights to use this old mine as a student laboratory for underground surveying and potentially a practical mine class. Exploring this mine gave some of the freshmen students a lot of excitement to continue pursuing a degree in mineral extraction.



# MEC Mineral Kits

This year our chapter volunteered to help the MEC with their booth at the National Science Teachers of America (NSTA) annual meeting in Salt Lake City. Students helped make a thousand mineral kit boxes that were given to science teachers from around America. Many were also given to parents who home school their children and had no other source for information about rocks and minerals. We helped collect all the minerals from local mining operations and then used the motivating power of free pizza to get members of our chapter to help us fold all the boxes. With a little engineering magic, we made quick work of folding one thousand boxes. This year's conference was a huge success and all the kits were handed out by the second day of the conference.



## MEC engages more than 730 teachers at NSTA area conference

by Rebecca Smith and Tanya Kris, MEC Coordinators

Teachers from as far away as the Cayman Islands came to Salt Lake City, UT to attend the 2019 National Science Teaching Association (NSTA) Area Conference Oct. 26-29. Among the booths of science-teaching materials, curriculum-sales tables and makerspace demonstrations, stood a long line of teachers eager to get their free rock and mineral kits from the Minerals Education Coalition (MEC) booth. In the end, all 1,000 boxes that were diligently assembled by students from the University of Utah Mining Engineering Department were claimed by more than 730 teachers.

The kits were made possible by the donation of materials and by the volunteers who gathered, hauled and collected the buckets of inch-sized samples, so that teachers could fill each designated cell in the box with the appropriate specimen. Each teacher also received a key that identified the samples, described how the materials are mined, how they are used and how to incorporate the samples into a lesson in the classroom. The Salt Lake City NSTA booth provided basalt, gold ore, copper sulfide, granite, gypsum, quartzite, salt (halite), phosphate, bituminous coal and a polymeric sulfide.

As the teachers worked their way down the line, they had the opportunity to ask questions of the volunteers. Aaron Young, SME member, Ph.D. Fellowship Program participant and one of the volunteers, explained that by volunteering in this capacity he recognized the value of the work of MEC: "I think a lot of the mining industry has a hard time understanding why doing MEC outreach is so important. For me, the value comes in seeing the expressions on the faces of the people I talk to who, until talking to me, were totally unaware of how much society needs mining."

Also included in the teachers' experience at the booth was an opportunity to learn about MEC's online competition for students in grades K-12, Mine Mining Near Mine. They learned about the resources available to them on [www.mineraleducationcoalition.org](http://www.mineraleducationcoalition.org) that are not only free, but are aligned with all state and national standards. In all, the booth provided a wealth of information that can enrich earth science education for hundreds of teachers and for thousands of students.

Teachers line up to get mineral samples.



[www.miningengineeringmagazine.com](http://www.miningengineeringmagazine.com)



SME members Rishi Wadhvani and Emily Rose answer teachers' questions at the MEC booth.

### From a volunteer's perspective

Ahni Samal reports — "It was a pleasure working with Tanya Kris, the MEC Outreach Coordinator, and helping the MEC at the NSTA Salt Lake City area conference. I'm looking forward to another opportunity next year, and I learned a few things today:"

- MEC is playing a huge role in providing support and resources to teachers at this conference.
- Science teachers are thrilled to make their own rock box, which needs a great deal of support from volunteers, like myself.
- The science teachers have a lot of questions. We can try to answer some of their questions. It is truly fun chatting with them.
- SME members can do much more in providing support to the MEC. We all can contribute to the greater cause of educating the next generation of scientists and engineers.

### Thanks to volunteers

MEC would like to thank the following volunteers who helped in the planning, storage, hauling, box making, set-up, booth hours, teardown and shipping to make this possible: Wend Cooksey, Aaron Young, Ahni Samal, Paula Elson, Shawn George, Jamie Duntton, Dean Grenier, Kathleen Ten, Rebecca Swales, Carbin Jensen, Steve Trappes, Erin Rose, Laura Meyer, Chase Carroll and the University of Utah Mining Engineering Department.

A big thank you also to the following companies for their generous donations: Barr Engineering, who provided all boxes, printing, stickers and mineral guides, F.L. Smith, Bronco Utah Operation, Nevada Gold Mines, Richmond Minerals and USG Corp.

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# Trapper Coal Mine

This year our previous chapter president, Jarom Gleed, organized a field trip to the Trapper Coal mine in Colorado. We rented two vans and made the five-hour drive to Craig, CO. We stayed in a motel, and the next morning we had an incredible tour of the mine. This was the first time at an open-pit dragline coal operation for all our students.

Trapper was very accommodating and let us climb up on one of the draglines. We had a large portion of our group that were freshman students, and I think that this trip was instrumental in retaining those students.



# Halloween Party

This year the Chapter had a costume party and caramel apple bar.



# Morton Salt

We had the privilege to visit a unique mining operation in Utah. We visited Morton Salt in Grantsville, UT. We were able to see where they pump the saltwater from the Salt Lake, concentrate it in evaporation ponds, and then harvest the salt. They also took us through the washing and packing plant. This was a great tour with a small group of students. They fed us lunch and as poor, hungry college students that might have been the best part. One student fit in so well with the staff they offered him an internship on the spot.



# Komatsu Equipment Company

The Komatsu Equipment Company invited a group of our senior members out for a tour of their rebuild shop in Salt Lake City. We had a hands-on tour of how Komatsu operates its business in the western united states. They loaded us up with great Komatsu swag, and after the tour, they took us to a local bar for dinner and drinks. This was a great networking experience for the seniors of our chapter.



# Dyno Nobel

Dyno Nobel gave us a tour of their testing facility in Saratoga Springs, UT. We took a big group of students, and they split us up into three groups. We toured the emulsion lab, the testing range, and we got an overview of the operations that Dyno Nobel has around the world. At this facility, almost everyone there has a Ph.D. in Chemical Engineering. They did an excellent job of getting the science to a mining engineer's level, and we had an enjoyable time. The highlight of the tour was the blasting bunker. They even let a few of the students set off the explosives. This was another amazing tour by our local mining vendors.





# SME Annual Conference and Expo

The SME Conference was the pinnacle of all our activities. We were able to send over 30 students to the conference. These students were fully funded because of our incredible efforts with the fundraising. Phoenix was a great venue, the weather was perfect, and we enjoyed swimming and all the great restaurants. The U of U Chapter organized a bar and game night at the Lucky Strike bowling and bar. We had a huge turnout, and almost every school was present for drinks and fun. All our student members came home from the conference with a long list of contacts, memories, and lifelong friends.



# Resolution Copper

After the conference, we rented a couple of vans and headed to the Copper Triangle. Our first stop was Resolution Copper. Zach Brown was an intern for Cementation last year, and he was able to get a personal tour of the surface facilities.



# Morenci Copper

After we visited Resolution, we headed to Morenci. We spent the night in the local hotel and played a few rounds of bowling at the brand new bowling lanes. We had a personal tour of the operations from drilling and blasting all the way to electroplating copper anodes. This is a once in a lifetime experience that will remain with our students forever.

