March 4, 2015

Attending the 2015 SME conference in Denver was a rewarding experience, and I gained invaluable insight into the mining industry and SME group dynamics.

The meeting of student groups provided perspective on how other school's SME programs are organized and maintained. The successes and failures they spoke of will accelerate our program's rebuilding and contribute to its future success. Specifically, we should use incentivized recruitment by attaching events to meetings and showcase the wide range of businesses affiliated with SME. We were all surprised by the presence of employers not typically associated with mining groups, such as; environmental, material, and modeling firms. This should help to broaden our group beyond geologists, and geo/civil engineers. The University of Minnesota's lack of mining programs will never allow us to reach the membership levels some of the other schools enjoy, but we can still be an active and successful student group. They also spoke of how their groups are structured, the methods used in recruitment, and how they choose who can utilize the SME benefits when spots are limited.

Next, we attended the expo portion of the conference to hand out cards promoting a better public view of the mining industry, while connecting with the diverse group of booth operators. Handing out the cards turned out to be a great way to meet many interesting employers and forced me to speak, in depth, with many companies I would have never approached otherwise. Typically, I expressed interest in their companies to start a conversation and after explained our goal of improving public outlook with the cards and their linked video. All of the booth operators were very receptive and happily displayed the cards on their tables. This proved to be a great experience and has equipped me with an array of business cards and contacts, which may be integral for my job search after graduation. I was also thrilled to meet a few well-known University of Minnesota alumni and former professors among the booth operators.

The keynote session was an interesting forum where executives representing major firms spoke about their individual companies and the future of the mining industry in their sectors. It also involved an open forum portion where they took questions written by the audience and gave direct feedback. I enjoyed seeing the corporate views towards the industry and hardships each face, especially the differences by sector. Caterpillar seemed to be a very active company. It was all rather political and many of the answers given followed suit, especially a very direct question about the public view of environmental impacts, which had all of the speakers on the defensive. Environmental issues related to mining are an area of interest for me, and I would have liked to see it dealt with differently.

Attending the seminars/lectures was very informative and probably my favorite portion of the entire conference. I regularly attend seminars on campus and enjoy

detailed reports on people's work or research. A talk about groundwater piqued my interest, so I sat in. I was surprised to see that much of it was nearly identical to much of what I had learned in Otto Strack's class the semester before. It is always nice to be reassured that what we are learning is relevant to actual work.

The next was a very technical talk about modeling fracture dynamics in heterogeneous media. Most of it was over my head and difficult to understand due to a soft-spoken, thick accent. However, I find it intriguing that it is even possible to compute and model such a complex system. This could be very useful in modeling water movement through complex media, if the media can be properly categorized. Similar to this lecture was a fracking talk about manufactured sand replacements, or proppants, and the properties required to maintain open fractures under such huge pressures. The presenter was such an excellent speaker, and the topic so engaging, that we stayed for another talk. This time it was about frac sand qualities and distribution across the United States. The USGS is currently mapping possible sources of frac sand and categorizing the sands by quality. The speakers were the scientists responsible for this task and garnered many questions from the audience. I now know much more about the distribution of frac sands, as well as how it is graded. This particularly pertains to our region since our sandstones are considered to be top quality and accessible deposits. I had no idea the quantities of sand or proppant required were so large for each well.

Our exciting conference ended with the Friends of Minnesota reception. Meeting many influential people from our local businesses was a great experience, and I wish we did not have to rush off early to catch our flight. The time we could spend with them was very rewarding. Everyone was very welcoming and I was happily surprised that they were as interested in our activities as we were in their undertakings. This event showcased the strong mining industry within Minnesota and the great people associated with SME in our great state.

I hope to help perpetuate this greatness with my contributions in building our SME group over the next year. Our first task will be in rebuilding the framework of the student chapter by organizing our duties and ourselves. Then we will organize meetings and an event to recruit members and build an email list. This group needs to include underclassmen that can take the reins and hold them for longer periods than a semester or two. This should help create continuity and limit yearly transitions to a few officers. Then we can hold elections, hopefully by mid April, and continue forward.

Thank you for this great experience and opportunity. I look forward to attending future events in my remaining year in school and bettering or SME relationship. Thank you for all your support.

Weston Fenner