



**June 2023**  
**Second Quarter**

# Fire in the Hole Scroll

## Inside this issue:

BITW Recap.....	1
BITW Winners.....	2
BITW Thanks.....	3
Field Trip.....	4-5
WY Numbering.....	5
SD Mines Grant .....	6
Paul Gregg .....	7
Joe Wood .....	7
CHF Anniversary .....	8

## Newsletter sponsors:

- AAMCOR LLC
- Blaster's Tool & Supply Company
- Dyno Nobel
- Eloranta & Associates
- Nobel Insurance Services
- Nomis Seismographs
- Rothenbuhler Engineering
- Sayre Associates
- Stemlock Inc.
- Strayos

*If you have any questions regarding this newsletter or would like to update your communication preferences, please email Carrie at [carrie@sayreassociates.com](mailto:carrie@sayreassociates.com)*

**Thanks for reading!**

## More than 275 Gather in Spearfish for 34th Annual Best in the West

*Article, photos and captions by Dede Manross, ISEE Director of Communication*

The Best in the West Drill and Blast Conference took place April 19-21 in Spearfish, South Dakota. More than 275 attendees began Wednesday with a golf scramble, Crazy Horse tour, and a Paul Muehl Memorial Trap Shoot.

After the morning activities and lunch, a regulatory session was held that included Clark Mica, IME, Reo Barney, Wyoming DEQ, Ken Eltschlager, OSMRE, and Crystal Clardy, ATF Explosives Enforcement Specialist. The regulatory session was followed by a reception sponsored by Dyno Nobel, Buckley Powder, and Quick Supply.

Sessions were held all day Thursday including various drill and blast topics adding up to 8-hours of refresher training. Attendees also had the opportunity to visit with exhibitors before, during, and after the sessions.

An evening awards banquet was held including recognition of students who earned scholarship monies totaling \$15,000. Following the awards, the famous Best in the West auction was held earning more than \$16,000.



▲ *Neal Lee spoke on Varying Stemming Heights Based on Horizontal Relief Available to Each Hole*

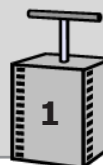


▲ *Attendees received 8-hours of refresher training for attending all of the sessions.*



Sessions and exhibits continued Friday morning followed by a lunch before the conference adjourned.

◀ *ISEE Past President Jerry Wallace (left) paid tribute to Paul Sterk for earning the Distinguished Service Award from ISEE*



## Winners at the Best in the West Conference

### 2023 BITW Scholarship Winners

David Abiodun, Montana Tech  
Alejandro Camacho, University of Utah  
Gabriel Cogley, Montana Tech  
Lauren Fritz, SD Mines  
McKoy Gebhardt, Montana Tech  
Nathan Haglin, Montana Tech  
Harley Hoiles, Montana Tech  
Seth Rice, Montana Tech  
Zachary Thooft, SD Mines

### Paul Muehl Scholarship Trap Shoot

Top Shooter: Neal Rothenbuhler  
Most Chance to Advance: Stephen McGowan

### Bob Martin Scholarship Golf Tournament

Top Team: Bob Labbe, Nate Frederick,  
Cam Ham. Caddie: Paul Pesek

### Supplier Appreciation Award

Gary Jerke, Rothenbuehler Engineering

### Newbie Award

Adam Kingery, Quick Supply Company

### Special Award

Award for Walt Partridge, in recognition  
for serving as the auctioneer for the BITW  
live auction for many years.



◀ BITW Scholarship Chair Baron Fidler (left) presents checks to student scholarship winners at the Banquet on Thursday night.



▲ Gary Jerke with the Supplier Appreciation Award



▼ (L-R) Doug Hoy & Paul Sterk treat Adam Kingery (right) with the BITW Newbie Award



◀ ▲ Blasting box plaque for Walt Partridge reads, "Thank you for years of dedication to the Best in the West and supporting hundreds of students in the mineral industries."

**DYNO**  
Dyno Nobel

**Baron Fidler**  
GM Coal Corporate Accounts

**Dyno Nobel Inc.**  
6440 S Millrock Drive, Suite 150  
Salt Lake City, Utah 84121

Ph: 801.328.6484  
M: 801.209.3897  
baron.fidler@am.dynonobel.com

There is no elevator to success.  
You have to take the stairs.

**Photo credit:**  
Thanks to **WorldWide Drilling Resource** for taking and sharing these photos!



## Thank You to the Suppliers, Sponsors, and Exhibitors for Their BITW Support

AAMCOR Holdings  
ATF  
Austin Powder Company  
Blasters Tool & Supply Co.  
Brunner & Lay Inc.  
Buckley Powder Company  
Business Automation Specialists of  
MN, Inc.

Coeur Wharf Resources  
Crazy Horse Memorial  
Crum & Forster  
Daigh Co. / Da-Mite  
DRW Associates  
Dyno Nobel  
Enaex  
Holiday Inn—Spearfish Convention Center  
Ideal Blasting Supply  
Integrated Geotechnical Solutions  
International Society of Explosives Engineers  
LDE Corporation  
Montana Technological University  
MTI USA  
Nelson Brothers  
Nobel Insurance Services  
Nomis Seismographs  
Partridge Auction Services  
Quick Supply Company  
R.A. McClure, Inc.  
RDO Integrated Controls  
RESPEC  
Rothenbuhler Engineering



*Compliments of WorldWide Drilling Resource® 2023*

▲ Exhibitors at the Best in the West  
Photo credit: WorldWide Drilling Resource

Sayre Associates, Inc.  
Sigicom, Inc.  
South Dakota Mineral Industries Association  
South Dakota Mines  
Stemlock, Inc.  
Strayos  
Tradestar Corporation  
Tread Corporation  
Ulterra  
Vibra-Tech Engineers  
Visit Spearfish  
WorldWide Drilling Resource, Inc.

### A big THANK YOU to the Best in the West Conference Planning Committee:

Tyler Artz, Darcey Baker, Megan Buurma,  
Baron Fidler, Doug Hoy, Thom Hunter, Carrie  
Jaeger, Jim McNulty, Paul Sterk, Purushotham  
Tukkaraja, and Eric Weyer.



[www.Stemlock.com](http://www.Stemlock.com)  
Stemlock® Gas Bags  
4200 NE Port Dr.  
Lee's Summit, MO 64064  
(816) 795-7662

**Brian Loader**  
Western Regional Manager

Mobile: (801) 376-2728  
[bloader@stemlock.com](mailto:bloader@stemlock.com)



**ROTHENBUHLER  
ENGINEERING®**

**Gary Jerke**  
Sales • Service • Training

(307) 680-5948  
[jerkeg2000@yahoo.com](mailto:jerkeg2000@yahoo.com)

1086 Highway 50  
Gillette, WY 82718  
[www.rothenbuhlereng.com](http://www.rothenbuhlereng.com)

Not to brag or anything, but I can forget what I'm doing while I'm doing it.





## Pete Lien & Sons—Nemo Mine SDSM&T Mine Tour Field Trip

*Written by Darcey Baker, Pete Lien & Sons*

We convened at the Nemo Mine office trailer at 09:00 on Saturday, 22 April 2023. A total of 13 individuals from the South Dakota School of Mines included two faculty members — Dr. Kelli McCormick and Dr. Trevor Waldien — accompanied 11-students from both the Mining Engineering & Management and the Geology/Geological Engineering departments.

We started the field trip with the first 30 minutes spent in the office trailer, going over Site Specific Hazard Training, a short Q & A session, and some basic historical background of the Nemo Mine.

From there, we headed up into the north end of the pit for a general overview of the exposed B-Zone of the ORE in the south face of the 4560 Bench. Following a quick overview from the north end, we proceeded down onto the 4540 Bench to get a closer look at the B-Zone.

We also spent some time near the intersection of the newer north pit area that was developed beginning in 2015 and the older south pit area that was mined prior to 2014. This area of the pit is a stark contrast to the way the Mine was previously operated (in the south end) to the way we are developing the Mine in the newer north pit area. The primary emphasis of the field trip



▲ *Plate 1: Brandon McArthur (green hardhat) explaining some of the intricacies of drilling and blasting ORE at the Nemo Mine.*

revolved around the safety aspects of mines and mining and a great deal of the discussion was spent on highwalls, modes of face and slope failure, and the impact of variable foliation planes, joint planes, and bedding of the rock itself.

In the photo shown in Plate 2 (page 5), Brandon McArthur (far right) and Darcey Baker (far left) answered many questions asked by the group. Dr. Kelli McCormick (blue hard hat, front row, 5th from left) and Dr. Trevor Waldien (white hard hat, back row, 8th from left) from SDSM&T brought eleven of their students from

**CONTINUED ON PAGE 5 ►**

**James Carter**

President

4766 Grantswood Rd Suite 100  
Irondale, AL 35210  
USA  
+1-205-592-2488  
james@nomis.com  
www.nomis.com

**NOMIS**  
SEISMOGRAPHS

**Sayre**  
Associates

**Doug Hoy, P.E.**

(605) 940-1055 cell

dough@sayreassociates.com

**Vibration Monitoring,  
Pre-Condition Surveys, Public Relations  
Remote Monitoring Capabilities,  
Claims Investigations**

***Call today to discuss your project specific needs!***

www.sayreassociates.com • (605) 332-7211 • Sioux Falls, SD

Starting your day with an early morning run is a great way to  
make sure your day can't get any worse than it started.

## Continued: Nemo Mine Tour Hosted by Pete Lien & Sons



▲ Plate 2: Group photo of the 22 April SDSM&T Field Trip hosted by Pete Lien & Sons at the Nemo Mine.

the Mining and Geology Departments to brave the 22° temperatures at the Nemo Mine on Saturday morning. This photo was taken from the 4540 Bench, looking generally southeast with the 4560, 4580, and 4600 Benches shown in the background.

Once all the questions were answered, and Brandon and I were satisfied that we had shown the students everything that we could, we slipped back up towards the plant site and the Surge Pile. The Surge Pile afforded the safest means for the group to look for and select representative hand samples of the Nemo Mine banded iron formation material, and no field trip is complete without the opportunity to collect some hand samples...

Special shout out of thanks to Brandon McArthur for his participation during this field trip, for addressing questions as needed and for helping to make sure all the Field Trip attendees remained safe!



**Harley W. Bradbury**  
President

2128 Constitution Blvd  
West Valley City, UT. 84119  
[www.aamcor.com](http://www.aamcor.com)

Office: 801-973-0306  
Fax: 801-973-0309  
Mobile: 801-232-5158  
Email: [harley@aamcor.com](mailto:harley@aamcor.com)

My ducks are not in a row. I don't even know where some of them are and I'm pretty sure one of them is a pigeon.

### NOBEL INSURANCE SERVICES®

*Insuring the Explosives Industry*

Dwaine E. Arnold  
Underwriting Manager

122 WEST JOHN CARPENTER FREEWAY, SUITE 110, IRVING, TX 75039  
TEL. (800) 766-6235 x4114 • (972) 644-0434 x4114 • FAX (972) 644-0424  
[darnold@lancerinsurance.com](mailto:darnold@lancerinsurance.com) • [www.nobelinsurance.com](http://www.nobelinsurance.com)  
*A Division of Lancer Insurance Company*

## Numbering Change for WY Blaster Certification

*By Reo Barney, Blasting Program Manager  
Wyoming Department of Environmental Quality*

Currently the last two-digits of number for the Wyoming Blaster Certification Surface Mining Coal and Surface Mining Non-Coal blasting endorsements indicate the year the certificate was issued. For example, WS 9999-18 would indicate issuance in the calendar year 2018 and be valid for five years which means expiration would be within the calendar year 2023.

Starting January 1, 2024 for new issuances only, the last two digits of the Wyoming Blaster Certifications number (Surface Mining Coal and Surface Mining Non-Coal Endorsements) will change and indicate the calendar year in which renewal is due. For example, WS 9999-29 would indicate that the Wyoming Blaster Certificate is due for renewal within the calendar year 2029.

If you have any questions please contact me. My direct work line is (307) 675-5612. My email address is [reo.barney@wyo.gov](mailto:reo.barney@wyo.gov).



# What's Happening

## Reports & News From Around the Industry

### SD Mines Leverages Advanced Mining Technologies to National Science Foundation Engines Grant

*From "Mines News" published May 25, 2023, online at [www.sdsmt.edu/News/NSF-Engines-at-Mines](http://www.sdsmt.edu/News/NSF-Engines-at-Mines)*

South Dakota Mines is partnering with five regional universities thanks to a \$1 million grant from the U.S. National Science Foundation's Regional Innovation Engines (NSF Engines) program.

Mines is among more than 44 teams nationwide to receive one of the first-ever NSF Engines Development Awards, which aims to help partners collaborate to create economic, societal and technological opportunities for their regions. The regional collaboration includes Mines, the University of North Dakota, the Tribal Nations Research Group, Montana State University and MiTech and Boise State University. The project brings together leaders in autonomous systems in these states.

The Department of Mining Engineering and Management at Mines brings an expertise in cutting edge mining technology to the project. South Dakota Mines is also home to the Mining Hub, which includes diverse partners to work in convergent research areas that include technology development and implementation, digitalization, human factors, and many other areas to support sustainable recovery of the Earth's resources, to ensure a stable national supply of materials, and to support the nation's needs — including critical minerals vital to the transition to a new greener



▲ *This Trolley Assist Haul Truck system is one example of technologies used in the mining industry that will facilitate the transition to autonomous battery electric vehicles.*

economy.

The regional NSF grant also focuses on driving workforce development initiatives to cultivate needed skills, including engaging all stakeholders and expanding participation of under-represented groups — especially from Native populations that are critical stakeholders across the region.

The mining industry boasts the most autonomous miles traveled in any industry, leading all industries in use of autonomous equipment. Emerging mining technologies are on pace to transcend other industries including agriculture, construction, automotive and other autonomous vehicle applications.

“The exciting part of this opportunity is that it is bringing together experts from a variety of fields that will combine their collective knowledge to ensure the stakeholders realize the maximum benefit from existing and emerging autonomous technologies,” says Robert Hall, Ph.D., a professor and head of the Department of Mining Engineering and Management at South Dakota Mines.

**Eloranta & Associates Inc.**

**JACK ELORANTA**

6485 Koski Road | Tower, Minnesota 55790

Tel 877-342-2666 | 218-753-2666

[www.ElorantaAssoc.com](http://www.ElorantaAssoc.com) | E-mail [Jack@ElorantaAssoc.com](mailto:Jack@ElorantaAssoc.com)





## In Memoriam: Paul Gregg

### December 27, 1941 — May 1, 2023

*Obituary and photo from Osheim & Schmidt Funeral Home in Rapid City, SD;  
found online at [www.osheimschmidt.com](http://www.osheimschmidt.com)*

Paul Gregg, 81, died Monday, May 1, 2023 at Monument Health Home Plus Hospice House.

Paul was born 12-27-1941 and grew up in Rockerville, SD. After high school he attended CSU at Fort Collins before entering the Navy as a Seabee and served in the Vietnam War. He became an Ironworker when he returned and worked for their union as Apprenticeship Coordinator in Casper, WY. During this time, he reunited with his high school sweetheart, Phyllis McDonald. They were married in January of 1976. With the union came two sons, Scott and Brett McDonald from Phyllis's previous marriage. He was their father for 47 years.

In 1978 he purchased Coon's Machine Shop from his father-in-law, Warren Coon, and the family returned to Rapid City. In the mid 80's Paul started a drilling and blasting company. One of his prize projects was enlarging the 3 tunnels on the Iron Mountain Road. You can see Mt. Rushmore through each tunnel and buses and motor coaches can drive through without getting stuck! He worked in that industry until he retired. Paul and Phyllis lived in Pringle, SD for many years. After Phyllis passed, Paul lived in Custer, SD until his passing on May 1st, 2023.

Paul is survived by sons Scott (Kelli) McDonald and Brett (Karen) McDonald; grandchildren Jordan (Chris) Faubion, Lauren McDonald, Jessica McDonald, and Emily Eisner; great grandchildren Grayson and Dempsey Faubion and Azalia Cassidy.

Paul leaves behind his twin sister, Pauline Zwick, and his brother Richard (Vivian) Gregg.

A memorial service will be held Friday, June 9, at 1:00 pm at Osheim & Schmidt Funeral Home. Burial will be at 3:00 pm at the Black Hills National Cemetery.

### Graveside Service for Joe Wood on June 21



There will be a graveside service for longtime Black Hills Chapter member Joe Wood, who passed away in March. The service will be on Wednesday, June 21 at 11:30 am at the Black Hills National Cemetery.

Per Joe's sister Nancy, it will be a small, simple, no-frills service as that is what Joe would have wanted. The family appreciates all the kinds words and messages shared through the guestbook on his obituary webpage, and would enjoy meeting those that can attend.



Photogrammetry Blast Design



Smart Drill Fragmentation AI Haul Road AI Stockpile Rock Mass AI

[www.strayos.com](http://www.strayos.com) [info@strayos.com](mailto:info@strayos.com) +1(314) 960-8706

## Blasters Tool & Supply Co.



**Expanding to better serve you.**  
**Now the Sole Producer for**  
**Thomas Instruments & Exploration Products**  
[www.BlastersTool.com](http://www.BlastersTool.com) / [www.Vibration.com](http://www.Vibration.com) / [Sales@BlastersTool.com](mailto:Sales@BlastersTool.com)



# What's Happening

More Reports & News From Around the Industry

## Crazy Horse Memorial Celebrates 75th Anniversary

*Photos and writeup from the Crazy Horse Memorial Facebook page, posted June 5, 2023.*

Friends, an amazing weekend preceded this #MountainMonday! We had a wonderful Volksmarch Saturday, followed by our 75th Anniversary Celebration on Sunday in which the work on Crazy Horse's Hand was unveiled for those in attendance to see via live feed and a jumbotron. The program was broadcast live and can be seen here <https://www.youtube.com/watch?v=9LhenW5fRG8>. Mountain Carving Director Dr. Caleb Ziolkowski is introduced 1 hour and 54 minutes into the program. Please take a moment to watch at least the reveal on the link which takes place during Caleb's presentation. The photos we share with you today are a close-up of the veil being removed and the dedicated Members of the Mountain Carving Crew that were helping handle the veil (with Crazy Horse's Thumb right behind them).



## Black Hills Chapter Contacts

Here are the 2023-2024 Black Hills Chapter Officers and Board of Directors. If you have any questions, comments or concerns, please contact one of these members. Your suggestions are greatly appreciated.

**Megan Buurma**, President  
Coeur Wharf  
mbuurma@coeur.com

**Darcey Baker**, Vice President  
Pete Lien & Sons  
dbaker@petelien.com

**Clint Kling**, Secretary  
SD Mines Student  
clint.kling@mines.sdsmt.edu

**Jim McNulty**, Treasurer  
Crazy Horse Memorial  
James.McNulty@crazyhorse.org

**Erik Carlson**, Past President  
Buckley Powder Co.  
Erik.Carlson@buckleypowder.com

**Joan Clements**, Director  
Century Blasting Service  
jrbeagle03@me.com

**Baron Fidler**, Director  
Dyno Nobel  
Baron.Fidler@am.dynonobel.com

**Steve Fildes**, Director  
Pete Lien & Sons

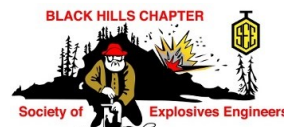
**Mike Golliher**, Director  
Pete Lien & Sons  
mgolliher@petelien.com

**Jeff Hermanson**, Director  
Crazy Horse Memorial  
Jeff.Hermanson@crazyhorse.org

**Brett Hunter**, Director  
Pete Lien & Sons  
bhunter@petelien.com

**Paul Sterk**, Director  
Underground Consultant  
sterk@rushmore.com

**Mike Watson**, Director  
(retired)  
watsonmp@hotmail.com



Black Hills Chapter of ISEE  
3213 W. Main #140  
Rapid City, SD 57702

