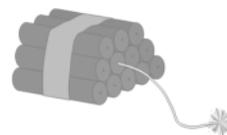


# The Primer



Newsletter of the Golden West Chapter, International Society of Explosives Engineers  
Alpha Explosives, P.O. Box 310, Lincoln, CA 95648

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Fall 2017

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## *In this issue . . .*

**President's Message**  
Page 1

**Editors Notes**  
page 2-8

**ANFO**  
by Wes Bender  
pages 9-10

**Memorial**  
page 11

**Advertisers**  
pages 12-15

**Fire in the Hole**  
page 16

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Articles may be submitted to:

*Mike Burneson - editor*  
P O Box 2540  
Napa, CA 94558

or

[mburneson@syar.com](mailto:mburneson@syar.com)

## **President's Message...**

Hey Members, Guests & Supporters,

In 1987, Dale Nies and Wes Bender sat on a pair of barstools at Cirino's in Nevada City California and discussed the possibility of forming a local chapter of what was then, the Society of Explosives Engineers, now the International Society of Explosives Engineers. Invitations were mailed out to SEE members inviting interested blasters and on December 14, 1987 a chapter name was selected, a constitution and by-laws adopted and officers and board members elected. In the years to follow the chapter newsletter, The Primer was published and later a website established. The Chapter held numerous workshops with knowledgeable experts in the industry. To celebrate the Golden West Chapter's 30<sup>th</sup> anniversary, we the board and officers invite you to join us for our annual dinner meeting at the Mt Pleasant Hall in Lincoln, CA.

On February 24<sup>th</sup>, 2018 to acknowledge those members who volunteered and dedicated their time to keep this chapter going. All past and present members, officers and board members are asked to attend to share their stories and memories over the years. The chapter will try and contact all past officer and board members to attend and we will pay for you and your significant other to attend. I would like to thank everyone who attended and supported the scholarship fundraiser at Coon Creek. The event was well attended and proudly supported by our members and sponsors. In the mean time, enjoy the newsletter and website! See you on the 24<sup>th</sup> of February!

Be Safe !

Your President,

Mike Chiurato

## The Primer

### Editor's Notes...

On behalf of the chapter. I would like to thank all of the sponsors who supported the 5th Annual Wesley L. Bender Scholarship Fundraiser. Alpha Explosives, Atlas Copco, Furakawa Rock Drills, Neil's Controlled Blasting, Instantel, Texas AGA, Inc. Insurance Services, Syar Industries, Wes Bender and Mike Burneson. What a great event. We received wonderful support from corporate sponsorship. We had a good turnout and some really great scores. Read ahead for more details from Editor's notes. In the next issue of the Primer I will publish part 2 of How to Handle a Blasting Complaint. Mark your calendars for our next Annual Business meeting and Crab feed scheduled for Saturday February 24th, 2018. We plan on having a fantastic speaker. A great meal and a lot of awesome raffle prizes. (see Coon Creek photos and story in the following pages). Our chapter president Mike Chiurato his wife Donna and GWC member Gerald Hackler and his wife Mary just returned from attending the European Federation Explosives Engineers 9th World Conference on Explosives and Blasting in Stockholm Sweden. Pictured in the photo at the Dyno Nobel Museum from left to right is Mike Chiurato, Alfred Nobel and Lars Johansen.



**Editor's Notes...**

The fundraiser at Coon creek ran as smooth as a clock. Our President Mike Chiurato and his wife Donna had everything under control. We had fabulous coffee and snacks from the Starbucks. The real brains of the group, our amazing Secretary Danniell Edwards, ran check in without a hitch. All of the participants were true professionals. We had wonderful weather and a good lunch. We had some great raffle prizes, awesome gift cards, RTIC ice chest and a glass shotgun filled with tequila were some of the items. The shotgun shell bags and hats provided by InstanTEL were very appreciated.

The following awards were presented to **Top Gun Team** score 408. Jesse Guertin, Brandon Boyd, Gary Pilkington, Arthur Umland and Makayla Umland.

**The Sun Was in my Eyes** Team score 258 Dan Reeves, Jimmy Dobbs, Woody Shields, Jim Dill and Mike Chiurato.

**Save the Clay Birds Foundation** score 203 Ray Hall, Ron Chickey, Jerry Martin and Scott Martin.

**Mens Top Gun** score 91 Brandon Boyd, Gary Pilkington score 87 and Jesse Guertin score 81.

**Womens Top Gun** score Makayla Umland score 59, Marcy Deluca score 42.

**Youth Top Gun** score Michael Deback score 74, Scott Martin score 43.

Hope you enjoy the photos. It was a fun day for everyone that participated.

Continued on next page

# The Primer



Welcome to Coon Creek



This handsome guy kept saying Bender



5TH Annual Shoot



Danniell Edwards and Donna Chiurato  
Great Job Ladies

## The Primer



Team # 4 Atlas Copco Jerry Martin, Scott Martin, Ray Hall and Ron Chickery



Team # 3 Alpha Verl Gilder, Michael Deback, Brendon Hagen ,Gerald Hackler and Ladd Stephenson



Team # 5 Alpha Dan Reeves, Jimmy Dobbs, Woody Shields, Jim Dill and Mike Chiurato

## The Primer



Team # 6 Wheatland HS/ Artland Const. Jesse Guertin, Brandon boyd, Gary Pilkington, Arthur & Makayla Umland



Team # 2 Blue Mtn. Minerals. Scott & Marcy Deluca, Steve Johnson and Eric Mathews



Team # 1 Alpha Ryan Segress, Dakota, Dalton and Walker

## The Primer



Highest Scoring Team # 6 Artland Const/ Wheatland HS



Brandon Boyd 91, Gary Pilkington 87, Jesse Guertin 81



Makayla Umland 59, Mary Deluca 42



Michael Deback 74, Scott Martin 43



We had some very good shooters this year and we provided very nice trophies to the different categories. All prizes, gift cards, ice chest and tequila shotgun were raffled off so everyone could be a winner.

# The Primer



Top Team



The Sun was in My Eyes Team



Save the Clays Team award



Top Women Shooters



Top Youth Shooters

## The Primer

### ANFO

by Wes Bender

We've all used ANFO in our blasting programs for so long that we kind of take it for granted. Ammonium Nitrate (AN) was first synthesized as early as the 1600s. During WWI Germany converted its agricultural AN facilities to manufacturing for their war effort. A large AN explosion in Germany in 1921 woke the rest of the world up to the energy potential for AN use in explosives. Dynamite manufacturers started replacing some of the nitroglycerin in their dynamites with AN.

During WWII the United States government established several AN manufacturing plants in the Midwest to help supply ammunition for the war effort. They were located away from the coasts to help protect them from enemy disruption. (After all, the Japanese had lobbed a few artillery rounds from a submarine onto the California coast north of Los Angeles so there was some logic to their decision.) One of the companies that they approached to manufacture AN was Pittsburg and Midway Coal Company in Pittsburg, Kansas. This company was owned by Ken Spencer and his family. After operating the Military Chemical Company for the government during the war as a subsidiary of the family business, Spencer bought the government facility and renamed it Spencer Chemical. So the product was readily available now, but it took another development to bring it into extended use in blasting. Large diameter drills were being developed that made the use of AN mixed with some form of carbonaceous material feasible.

In the mid-fifties in Indiana, Bob Akre and Hugh Lee of Maumee Collieries started experimenting with adding various types of carbonaceous material to AN in an attempt at making a relatively inexpensive blasting agent. In one of the tests, they tried molasses in the mix. It shot pretty well, but the bees it attracted made it difficult to handle. Eventually, they settled on carbon black as being the most promising and easy to use.

Jumping ahead to 1980, the SEE News, forerunner of today's ISEE *Journal of Explosives Engineering*, was a four page newsletter (printed on both sides of a single 10 x 16 sheet). If we were lucky, it would be published four times per year. Joe Dannenberg, formerly of Atlas Powder and proprietor of ABA Publishing in Wilmington DE was its editor. He had a column on the back page titled, *Tieing In... with Uncle Joe*. In the June 1980 issue his column looks back on the early history of ANFO in the US.

Here is a copy of Uncle Joe's column for your reading pleasure. Our thanks to the ISEE for their permission to use the material.

(continued on next page)

The American Mining Congress 1980 Coal Show was held in Chicago last month, but chances are nobody gave much of a thought that it was the 25th anniversary of the introduction of fertilizer-grade ammonium nitrate to blasting.

It was during the 1955 Coal Show that Robert W. Akre of Maumee Collieries presented the first paper on Akremite, a mixture of porous prills and carbon black, a dry carbonaceous material. Your Uncle Joe can well remember the scene in the Atlas booth when miners came strolling up the aisle of the old Cleveland public auditorium carrying polyethylene bags containing samples of the ammonium nitrate prills. They had been given them at the small booth down at the far end of the hall and bore the name Spencer Chemical company. Who the hell was Spencer Chemical Company?

"And is that stuff in the bags live?" asked our general manager.

Spencer Chemical Company, of course, later became Gulf Oil Chemicals. Spencer had cooperated in the tests that Bob Akre and Hugh Lee were running at Maumee. Before the Coal Show, when everything was set, Maumee held a press conference and demonstration. One of the attendees was C.M. Cooley, then editor of Mining Engineering. A mining engineer, Mel was much impressed by what he saw and what he could see this thing growing into. When one of the Spencer marketing men asked him after the demonstration to put a classified ad in Mining Engineering for a sales manager for the ammonium nitrate, Mel turned to him and said, "Forget about an ad. You've got your man -- me."

So it was Mel Cooley in charge of the Spencer booth at the 1955 Coal Show. But on the third day of the show something happened which made people wonder whether Mel's job would be important or not. A small sign appeared in the DuPont booth announcing that DuPont had bought the Akremite patent and that future licensing under the patent would have to be done through DuPont.

Everybody relaxed after this announcement. DuPont will bottle this thing up, we told each other. They won't let this damn fertilizer wreck the explosives industry.

Careful patent searching after the show revealed that the only unique thing in the

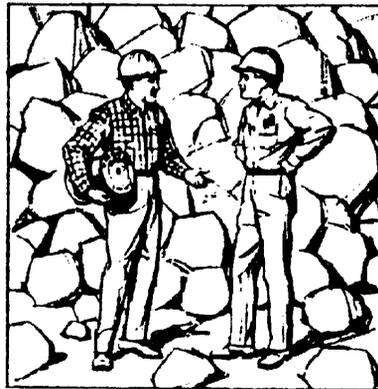
Akremite patent was the "expandable" polyethylene bag in which the mixed material was to be packed. Straightway many plant-mixed ammonium nitrate mixes appeared priced at \$8.50 a hundredweight, about double the price of fertilizer. Most of these mixes used kettle-grained AN rather than the prilled material, and one of them, Amocol by Atlas Powder Company, actually used a small quantity of old crankcase oil to hold down the dust of mixing in ground soft coal (rather than carbon black), little dreaming of the part oil was to play in the future.

Quickest to move on fertilizer was Austin Powder Company. Recognizing that coal companies really didn't want to get into the explosives manufacturing business, Austin quickly set up Akremite mix plants in various high-use areas. These plants all had the barrel mixer for blending the carbon black and fertilizer, and Austin soon became Spencer's largest customer.

Meanwhile Mel Cooley and the Spencer chemists were far from idle. They soon discovered that AN could be sensitized very well with 6% diesel fuel. But then Mel faced a marketing problem. His biggest customer was Austin, and Austin had already equipped its many plants with barrel mixers for mixing a dry product. What should he do? He decided to put things on hold.

But they held less long than he would have wanted. While out drinking with Bill LeClair of Cleveland Cliffs one night, Mel let slip the word on #2 diesel fuel. Bill tried it the next morning. Jack Knudsen reported its use at the next SME meeting in Duluth. And soon (within a decade) ANFO had taken over 80% of the high explosives market.

Bob Akre and Mel Cooley are both dead now. God rest their souls.



"Do you realize that when Akremite was introduced in 1955, you were an infant and, along with the explosives industry were wetting your pants."

## The Primer

### Memorial



Many of you knew my father Robert H. Burneson. This photo is Bob on his 90th birthday June 28, 2017. We also celebrated my daughters 30th birthday in June along with my 60th birthday in June. I am extremely saddened while I write this issue of the Primer as my father passed this last Sunday the 24th of September 2017.

# The Primer



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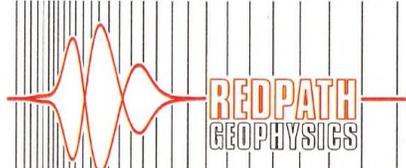
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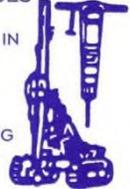
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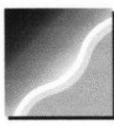
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## The Primer



Current board members and officers are:

President Mike Chiurato

Treasurer Gerald “Jerry” Fulghum

Secretary Danniell Edwards

Board member Ladd Stephenson

Board member/ Newsletter Editor Mike Burneson

Website Master Wes Bender

Chapter Activities 2018

Annual Winter Business Meeting

Mt Pleasant Hall Lincoln February 24, 2018

## **Fire in the Hole...**

Each Friday night after work, Bubba would fire up his BBQ grill and cook venison steak.

But all of Bubba's neighbors were Catholic and they were forbidden from eating meat on Friday.

The delicious aroma from the grilled venison steaks was causing such a problem for the Catholic faithful that they finally talked to their priest.

The priest came to visit Bubba & suggested that he become a Catholic and Bubba agreed to do it.

After several classes & much study, Bubba attended Mass where the priest sprinkled holy water over him & said, "You were born a Baptist & raised a Baptist but now you are Catholic."

Bubba's neighbors were greatly relieved, but the next Friday night arrived & the wonderful aroma of grilled venison filled the neighborhood, and the priest was called immediately by the neighbors.

As the priest rushed into Bubba's yard all prepared to scold him for cooking meat on a Friday, he had to stop & watch in amazement.

There stood Bubba clutching a small bottle of holy water. He carefully sprinkled the holy water over the grilling meat & chanted:

"You wuz born a deer, you wuz raised a deer, but now you iz a catfish."