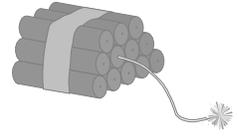


The Primer



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

Volume 25

Winter 2014

Issue 4

In this issue . . .

Presidents Message
Pages 1-2

Editors Notes
pages 3-5

Business Diner Flyer
page 6

**Earthquakes on Blast-
ing Seismographs**
by Wes Bender
pages 7-8

Advertisers
pages 9-12

Fire in the Hole
page 13

The Primer is published
four times per year
on the web site of the
Golden West Chapter
of the ISEE:

www.iseegoldenwest.org

Articles may be submitted to:

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

or

mburneson@syar.com

President's Message...

Dear Members,

About four years ago my Boss, Brad Langner, invited a bunch of us from Alpha to attend a Golden West Chapter meeting at the Cattlemen's restaurant in Roseville CA. I thought it to be a great idea. I would see people that I haven't seen in years and meet others for the first time. Brad informed me that the Chapter had struggled to get members to attend and that the officers and Board of Directors were footing the dinner bill. The place was packed and it looked to be a great success. The board consisted of Co-Presidents Bill Warfield & Wes Bender, Secretary Carey Haughy, Treasurer Gerald Fulghum, Board members Sandy Figures & Joseph Johnson.

It was very loud and I could hardly hear what was going on but, I was enjoying the festive atmosphere. After a few cocktails provided by one of the founding members, Dale Nies, I needed to hit the head. It was a good time too as Wes or Bill announced something about holding elections for the board and officers and I, not being a member, let alone a blaster, wouldn't be missed. When I returned I noticed that most everyone in the room was smiling at me. Nice people and very friendly. I looked over at Brad and noticed he had a big smile as well. Must of been the wine, I thought.

Continued on next page

The Primer

Presidents Message Continued...

An announcement was made and the name Mike Chiurato was given out as a nominee to the board. What? I looked at Brad as I shook my head. I might have even thrown him a polite hand signal as he answered the call "All in Favor?" with a resounding "I second that!" So here I am today going on five years as a Golden West Chapter Board Member and four of them as your president. On October 24th the Chapter lost a long time supporter and a fun loving guy always with a good story to tell and in this case, a prank to pull.

My goal for the chapter in 2015? Keep going. With the help of past and present board members and officers, I plan on not tearing down what you all have worked so hard to build. We the board and officers can't do it alone. We need you and the Brad Langners in this world to continue to attend and support our chapter. The first step is to attend our next dinner meeting and take part in our elections. Brad will be missed, but he was proud of being a chapter member and supporter. Let's honor that at the meeting.

Gonna miss you buddy!!

Be Safe!
Your President,
Mike Chiurato

Editor's Notes...

Bradley Richard Langner

Obituary

1948-2014



Bradley Richard Langner, 65, passed away in Mission Viejo, California, on Friday, October 24th, 2014, with his wife, Claudia and family beside him, after a brave and hard-fought battle with cancer.

Born in Sacramento, CA to Gladys Hill and Richard Bohannon Langner, who preceded him in death, Brad grew up in the Meadow Vista and Auburn areas. He graduated from Placer High School and went on to become a prominent business owner in the land surveying and construction industries.

Brad was an avid world-traveler who explored exotic locales such as Hawaii, Australia, and Africa, typically accompanied by family and friends. A gifted storyteller, Brad loved spending time with friends, old and new, and sharing tales over fine wine and food. He also held a passion for the outdoors and nature, particularly for hiking, running marathons, and hunting.

Brad is survived by his loving and devoted wife, Claudia Langner, with whom he spent much time traveling across America and abroad, discovering and sharing “the best of the best” through their close bond. Brad is survived by his children: Christopher Langner (Paula); Corrin Lepell (Josh); Karla Jacobsen; Ivy Nagel (Chris); and Faye Langner. He is also survived by Claudia’s children: Megan Sanchez (Eric); Jeffrey Janssens (Karin); and Marissa Rodriguez. Brad is also survived by his 8 grandchildren. He will also be missed by countless more family and friends, all who will miss sharing in his intelligence, humor, stories and zeal for life.

A celebration of Brad’s life will be held Dec 13, 2014 at the Winchester Country Club in Meadow Vista, California.

Continued on next page

The Primer

Editor's Notes...

As many of you know Brad Langner and Mike Burneson were always planning the next trip. Fishing on the ocean was always a favorite of Brads. He pretty much enjoyed any type of activity. He was an amazing story teller. I will never forget the funny little things that would make him laugh, like watching a dung beetle roll his little ball of shi... I will always remember him as a very generous person wanting to help his employees in any way he could. He loved going to concerts. He loved the art festival. He really enjoyed baseball games. We went on dozens of hunting adventures. I will never forget the time we were in the Trinity Alps packing in on Mules with summer clothing when it snowed one night. No we did not have a tent and yes a bear came through camp about midnight and had the horses and mules all run off. This was just one of many amazing trips with an amazing man. I am extremely saddened at the loss of this really good friend. He will be missed and I am already working on how to honor this individual by planning my next trip. Brad will be with all of us on our next adventure.



Continued on next page

Editor's Notes...

Plan on attending the Fourth Annual Crab Feed and Tri Tip business dinner meeting January 24, 2015 at Mount Pleasant Hall in Lincoln. We will provide an amazing meal at a tremendous value to our members and guests. We are putting together another fantastic program. Call 916-645-3377 today and let Mike or Danniell know if you plan on attending.

Just a reminder to review your ATF Regulations.

If you look it up on the internet click on the link:

<http://www.atf.gov/files/publications/download/p/atf-p-5400-20.pdf>

Check out page 2 and they show an example of the 555.125 Records maintained by permittees form.

Check out the Nevada Mining Association website It is a wonderful resource.

Cal-OSHA is not allowing chains on platforms as a gate. Here is a photo of a self closing gate using conveyor belt as a hinge. It works great. If you need additional information call me at (707) 558-1510.



**The Golden West Chapter
of the
International Society of Explosives Engineers**

Annual Business Meeting

When: Saturday, January 24, 2015
Social Hour 4pm – Dinner 5pm – 6:30pm
Introduce Scholarship Winner
Business Meeting & Elections - 7:00pm
7:30pm Guest Speaker –
8:00pm Super Raffle

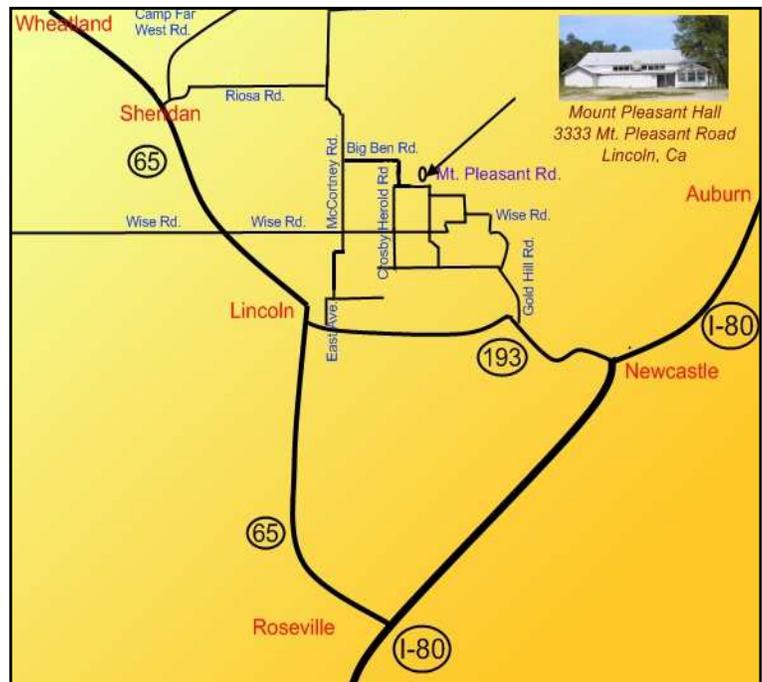
Where: Mt. Pleasant Hall
3333 Mt. Pleasant Rd.
Lincoln, CA 95648

Menu: Crab Feed
Tri-Tip
Pasta
Salad
Wine, Beer and Sodas
served with dinner

Cost:

All Members and Guests: \$30.00

Free to New Members
(\$25.00 dues are payable on joining.)



Registration: Please make your reservations with Mike Chiurato at (916) 645-3377
or by e-mail to: mchiurato@alphaexplosives.com
on or before Friday, January 16, 2015
Please make checks payable to Golden West Chapter

And mail to:

Golden West Chapter
c/o Alpha Explosives
P.O. Box 310
Lincoln, CA. 95648

Earthquakes on Blasting Seismographs

by Wes Bender

Those of you who are recording your blasts with seismographs on the west coast stand a good chance of inadvertently recording an earthquake. After all, you're right in the middle of prime earthquake country. Mike Burneson recorded one a few years ago and I recorded one once while monitoring at the San Rafael rock quarry. Unfortunately, Mike doesn't have a record of his and I deleted mine, thinking it was a random false trigger. It wasn't until I read of the bay area earthquake the following day and noted the time, that I realized I had recorded one. Too late. It couldn't be retrieved.

Our instruments are intended to record strong motion and aren't sensitive enough to capture distant earthquakes, although they will certainly be triggered by a strong enough local event. Usually, but not always, the body waves will slip through unnoticed, and the surface waves will be the ones to trigger your instrument.

Interestingly, we have the following instance where an instrument was set out with the intent of capturing an earthquake, were one to occur, and it did. I had rented an instrument to Sig Schwartz, a noted geophysicist in Bethell, Washington. Sig only needed the instrument for a little over two weeks, but had rented it for a month. He called me after the job was done and wondered if it would be possible to connect a Mark Products L4-3D 1 Hertz geophone to the instrument. I told him it wouldn't harm the instrument and gave him the pin-outs for a substitute geophone cable. I also cautioned him that the velocity amplitudes displayed wouldn't be correct because a non-linear amplifier was being used to amplify the lower frequencies somewhat. (The output of the 5 Hz Geospace sensors that the instrument normally used required amplification at the lower frequencies to bring them into specification at 2 Hz.)

Sig fabricated a cable, tested the system and set the unit out to monitor. Almost on cue, a 4.4 magnitude earthquake occurred near Bremerton WA on June 8, 1989 and Sig captured it. Sig indicated to me that the epicenter (the point on the surface that is directly above the hypocenter) was at a distance of 31 nautical miles (~ 57.4 km). The USGS has since determined that the hypocenter was at a depth of 44 km.

Attempts to analyze the records are difficult because too many assumptions must be made. Were the sensors aligned N-S, E-W as might be expected? Were the individual channels connected to the geophone correctly? The epicenter would lie at an approximate azimuth of 240 degrees (clockwise from North) from the instrument. Were these body waves? Possibly, but probably not. If these are surface waves on the record, the first should be a Love Wave (motion transverse to the direction of the source), followed by Raleigh Waves (motion vertical and longitudinal from the source).

On the recording of the earthquake included on the next page, note the low frequencies and low accelerations (and the resulting high displacements) when compared to conventional blasts. That explains why an earthquake (with relatively low acceleration) can knock a house off its foundation, while your blast (with much higher acceleration levels) causes no damage.

The Primer

Richter 4.4 31 nm
 Mark Products L4-3D Geophone
 1 hz SDS

INSTANTEL DS477 BLASTMATE

VIBRATION RECORD

SERIAL # 560 U 3.1
 CLIENT SD SCHWARZ
 LOCATION EXPERIMENTAL L4 3D
 SCHWARZ PATIO
 USER SIG SCHWARZ

TRIG SOURCE 900
 TRIG LEVEL 0.02 in/s
 RECORD TIME 7.0 s

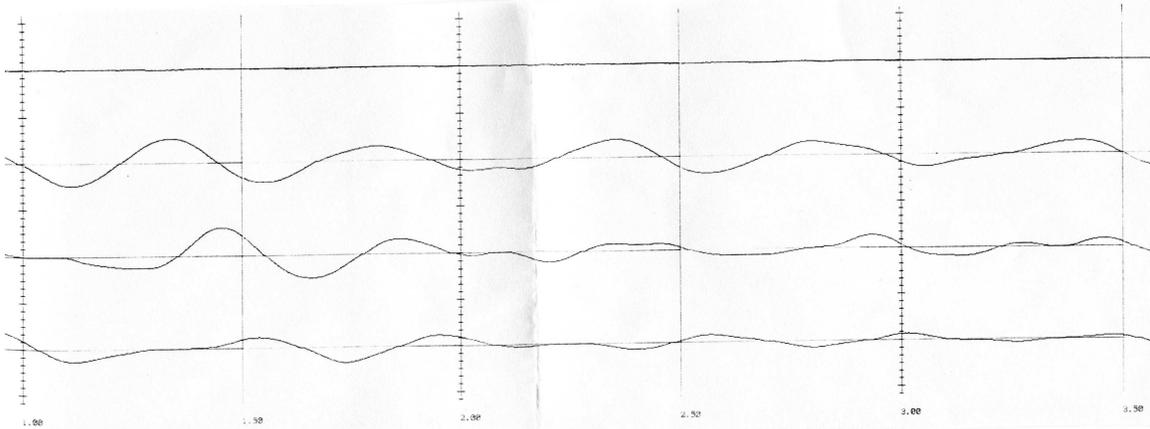
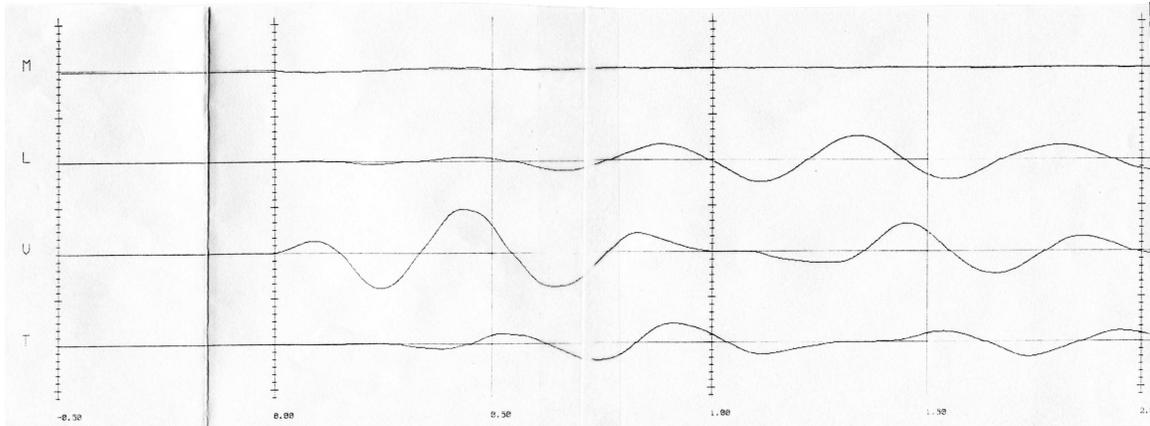
NOTES

TRIGGERED vert. at 13:39:51
 18 June 1989

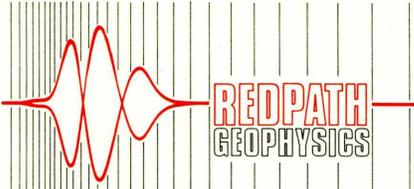
	TRAN	VERT	LONG	
PPV	0.454	1.006	0.562	in/s
FREQ	2	2	2	hz
TIME	906	431	1335	ms
ACCEL	0.02	0.03	0.02	g

PK DISP:
 1/4 WAVE 0.030 0.066 0.039 in
 TOTAL 0.033 0.067 0.040 in

PUS 1.012 in/s at 431 ms
 PSPL(RMS) 90 db
 PSPL(MAX) 93 db



The Primer



**REDPATH
GEOPHYSICS**

P.O. BOX 540 • MURPHYS • CALIFORNIA • 95247

BRUCE REDPATH

ENGINEERING GEOPHYSICS • BLAST DESIGN & PHENOMENOLOGY

209-728-3705

EXPLOSIVE & DRILLING SERVICES



SPECIALIZING IN
DRILLING
BLASTING
AND
ROCK BOLTING
SYSTEMS



Neil's Controlled Blasting, L.P.
GENERAL ENGINEERING CONTRACTOR
LICENSE NO. 797732

DON BELDEN
President
(916) 663-2500

P.O. BOX 749
NEWCASTLE, CA 95658

FAX: (916) 663-2507 MOBILE: (916) 240-8759
HOME: (530) 389-8906 EMAIL: dbelden@neilscontrolledblasting.com

**MINI-SEIS SEISMOGRAPHS
ECONOMICAL - POWERFUL - RUGGED**

- ◆ External Printing Capabilities
- ◆ Complimentary Data Analysis Software




**WHITE INDUSTRIAL
SEISMOLOGY, INC.**
www.whiteseis.com
1.800.641.4538

**NOBEL
INSURANCE
SERVICES®**

Insuring the Explosives Industry

Charlie M. Pollard
Marketing Director

12225 GREENVILLE AVE., SUITE 750, DALLAS, TX 75243
TEL. (800) 766-6235 x21 • (972) 644-0434 x21 • FAX (972) 644-0424
cpollard@lancerinsurance.com • www.nobelinsurance.com
A Division of the Lancer Insurance Company

**TREAD
CORPORATION**

Explosives handling equipment.
Bulk trucks, matrix mixing plants, & storage.
Parts & service.

Ronnie Bolling
VP North American Sales
540.982.6881 ext. 246
540.525.6933 mobile
rbolling@TreadCorp.com
www.TreadCorp.com



**EXPANDING GROUT...
NON-EXPLOSIVE!**

WBT Western Blasting Technology
Ca License #906358 - Nv License #0069140

**For Demolition, Construction
and Controlled Cutting**

**A silent demolition agent which is consistent
and safe, with no noise, vibration,
ash, toxic gases or residue.**

• *Meets OSHA environment regulations* •

24-HOUR EMERGENCY SERVICE
(530) 741-0873
MOBILE
(530) 713-9964



W.A. Murphy, Inc.
EXPLOSIVES DISTRIBUTOR

RANDY L. SPENCER
Northern California, Site Manager/Sales

Local Office:
P.O. Box 548
Copperopolis, CA 95228
Office (209) 785-4996 • Fax (209) 785-4995
Cell (209) 743-9561
rspencer@murphypowder.com

Main Office:
P.O. Box 4607
El Monte, CA 91734-0607
(626) 444-9271
(626) 575-2848 Fax

The Primer



TREAD CORPORATION
For routine service, repairs,
& replacement parts...
contact me today.

Bryan Gile
Field Service Technician
540.589.3611 mobile
bgile@TreadCorp.com
www.TreadCorp.com

WBT Western Blasting Technology

Randy Messer
Ca License #906358 - Nv License #0069140

2689 Hwy. 20
Marysville, CA 95901
randyblast@aol.com

Phone (530) 741-0873
Fax (530) 741-0876
Mobile (530) 713-9964

24-Hour Emergency Service

NOMIS SEISMOGRAPHS

Larry King

- Sales
- Service

205-592-2488 x22
USA Wats 800-749-2477
Fax 205-592-2455
lking@nomis.com
www.nomis.com

3728 4th Avenue South
Birmingham, AL 35222 USA

Atlas Copco

Bill Warfield
Marketing and Business Development - URE

Atlas Copco Construction & Mining

Atlas Copco Construction Mining Technique USA LLC
1708 Monte Bell Ct.
Roseville, CA 95661
USA
www.atlascopco.us

Mobile: (916) 768-9432
E-mail: bill.warfield@us.atlascopco.com



www.alphaexplosives.com

**DISTRIBUTOR OF A
FULL RANGE OF EXPLOSIVES
AND ACCESSORIES**

**EXPLOSIVES STORAGE
MAGAZINES
ATFE Type 2, 3, & 4
Custom fabrication available**

BLASTING SERVICES

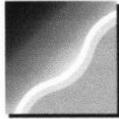
**BULK DELIVERY SERVICE
ANFO, MINI-PRILL
TITAN EMULSION™
FRAGMAX™
FRAGPAK™, SMALL DIAMETER**

**DRILL BITS, DTH HAMMERS
& STEELS**

**SAFETY TRAINING
INCLUDING OSHA & MSHA**

*Lincoln, CA (916) 645-3377
Mojave, CA (661) 824-1356
Plymouth, CA (209) 245-6977*

Major Credit Cards Accepted



GMU
GEOTECHNICAL, INC.

**ENGINEERING
SEISMOLOGY**

BLAST CONSULTING

VIBRATION MONITORING

PRE-BLAST SURVEYS

SEISMIC REFRACTION

RIPPABILITY STUDIES

Contact: Mr. Alan "Bob" Mutchnick, RG, CEG
Director of Engineering Seismological Services
Phone: (949) 888-6513 Email: bmutchnick@gmugeo.com
23241 Arroyo Vista, Rancho Santa Margarita, CA 92688
www.gmugeo.com



Instantel

The World's Most Trusted Vibration Monitors

Purchase, lease or rent our industry-leading vibration monitors through a national network of qualified dealers.

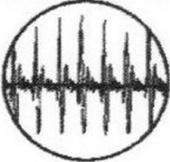
Your local Instantel Dealer:
Matheson Mining Consultants Incorporated

Contact: Colin Matheson
Telephone: (303) 456-5638
Toll Free: (888) 456-5638
Fax: (303) 456-5639
E-mail: colin@mathesonmining.com



www.instantel.com

Corporate Office 309 Legget Drive, Ottawa, Ontario K2K 3A3 Canada	U.S. Office 808 Commerce Park Drive Ogdensburg, New York, 13669 U.S.A.	Toll Free: 1.800.267.9111 Telephone: 1.613.592.4642 Fax: 1.613.592.4296 E-mail: sales@instantel.com
--	---	--



MUNICON CONSULTANTS
Construction Instrumentation

- Economical Remote Monitoring From Our Offices.
- Vibration Monitoring: Piles, Demolition, Blasting.
- Settlement Platforms, Inclinometers, Tiltmeters, Piezometers, EL Beam Sensors
- Pre-Construction Damage Investigation Photos

San Francisco Office 415-641-2570

The Primer



OFFICE: 707-429-8502
CELL: 707-372-9852

TODD K. HARRIS
SALES REPRESENTATIVE

AUSTIN POWDER WESTERN LLC
3872 BITHELL LANE
SUISUN CITY, CA 94585

www.austinpowder.com
todd.harris@austinpowder.com

Owner Retiring
Everything from Jackhammers
to AirTracks and Hydraulic Drills
Call Jock Masson
(209) 533-4716

**Matheson
Mining
Consultants, Inc.**

Seismograph Rental & Sales
888-456-5638

**Instantel**

Instantel Minimate Plus
\$550/mo

Blastmate III
\$700/mo

Measure 2 - 250 Hz
Blasting, Drilling,
Construction, Pile Driving

LIMIT LIABILITY!



Chapter Activities - 2014

Annual Winter Business Meeting
Mt Pleasant Hall- Lincoln- January 24, 2015

Michael Chiurato-President
Danniell Edwards-Secretary
Gerald Fulghum-Treasurer
Mike Burneson-Board Member
Wes Bender-Board Member

Fire in the Hole...

A blonde and a lawyer are seated next to each other on a flight from LA to NY. The lawyer asks if she would like to play a fun game? The blonde, tired, just wants to take a nap, politely declines and rolls over to the window to catch a few winks. The lawyer persists and explains that the game is easy and a lot of fun. He explains, "I ask you a question, and if you don't know the answer, you pay me \$5.00, and vice versa. " Again, she declines and tries to get some sleep. The lawyer, now agitated, says, "Okay, if you don't know the answer you pay me \$5.00, and if I don't know the answer, I will pay you \$500.00." This catches the blonde's attention and, figuring there will be no end to this torment unless she plays, agrees to the game. The lawyer asks the first question. "What's the distance from the earth to the moon?" The blonde doesn't say a word, reaches into her purse, pulls out a \$5.00 bill and hands it to the lawyer. "Okay" says the lawyer, "your turn." She asks the lawyer, "What goes up a hill with three legs and comes down with four legs?" The lawyer, puzzled, takes out his laptop computer and searches all his references, no answer. He taps into the air phone with his modem and searches the net and the library of congress, no answer. Frustrated, he sends e-mails to all his friends and coworkers, to no avail. After an hour, he wakes the blonde, and hands her \$500.00. The blonde says, "Thank you," and turns back to get some more sleep. The lawyer, who is more than a little miffed, wakes the blonde and asks, "Well, what's the answer?" Without a word, the blonde reaches into her purse, hands the lawyer \$5.00, and goes back to sleep. And you thought blondes were dumb.