

The Official

AEG OREGON CHAPTER NEWSLETTER

<http://www.aegoregon.org>

Meeting Details:

Date: Tuesday, October 18,
2022 7:00 pm Hybrid

[Physical RSVP](#)

[ZOOM RSVP](#)

In-Person \$25
Cash or check.
Cards please use
link below.

Old Market Pub
6959 SW Multnomah
Blvd

Agenda:

5:30- 6:30 pm SOCIAL
6:30-7:00 pm dinner
7:00 pm Presentation

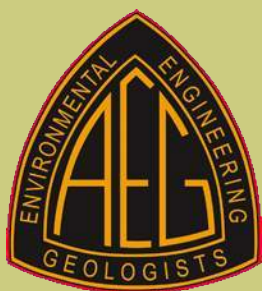
UPCOMING MEETINGS:

November 15, 2022--TBD
December 13, 2022--TBD
January 17, 2022--
Mosquito Crk Debris Flow
(Machan & Zimmerman)
February 21, 2022--TBD
March 21, 2022--TBD
April 18, 2022--TBD

Telegram from the Earth's Interior or Just Bad Breath from the "Mouth of Hell"?: Monitoring Gas Emissions from the World's Most Active Volcanoes.



Volcanic gases provide the driving force behind explosive volcanic eruptions that can generate umbrella clouds reaching the upper stratosphere or send scorching hot flows of mud down drainages to cities more than 50 km away. The field of volcanic gas geochemistry therefore plays a key role in understanding volcanism. The recent advent of automated, continuous geochemical monitoring at volcanoes now allows us to track activity from unrest to eruption, thus providing valuable insights into the behavior of volatiles and gases throughout the entire sequence and a rich dataset for developing diagnostic tools for eruption forecasts. Volcano emissions also have a profound impact on Earth's natural environment, impacting atmospheric chemistry and climate. This presentation discusses recent advances in volcanic gas monitoring and how these new techniques are being applied at volcanoes around the world to improve our understanding of active volcanism and help protect lives and property from volcanic eruptions.



*Geologists have a
saying - rocks
remember.*

Neal Armstrong

Christoph Kern



Christoph Kern is a Research Physicist with the U.S. Geological Survey. His research focuses on measuring volcanic gas emissions to gain insights into processes occurring within active volcanoes. Christoph splits his time between monitoring U.S. volcanoes in Alaska, Hawaii, and the Cascades Range, and working with the USGS Volcano Disaster Assistance Program to provide instrumentation and advice to volcano observatories around the world. Christoph is always striving to find new measurement techniques and analysis tools to detect gas signals diagnostic of volcanic unrest. He is also interested in how volcanic gases affect atmospheric chemistry and climate on local, regional, and global scales.



Message from the Chapter Chair

Hello Oregon Chapter!

Congratulations for being named **Chapter on the Rise** at the AEG Annual Meeting in Las Vegas! According to Mark Swank, our AEG Region Director, the award for Chapter of the Year came down to Sacramento and Oregon, and Sacramento won on a coin toss. The award also includes a small monetary award for the chapter, so we'll find a way to celebrate at a future meeting once we get the check.

It was a pleasure being back at Old Market Pub for our September meeting. Tom Westover gave a very interesting presentation on the Washington Park reservoir replacement project, followed by a very engaged question and answer session. I think we're now all looking forward to visiting the site when the area reopens to the public.

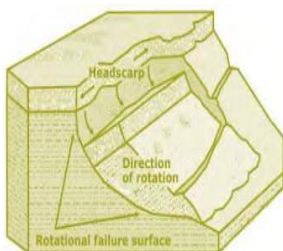
Our speaker for October, Christoph Kern, is a research physicist for the USGS Cascade Volcano Observatory. His work focuses on using gas emissions from volcanoes to forecast future eruptions and then communicating that risk to surrounding communities. By the end of the presentation I expect we'll all be searching Amazon for gas monitoring equipment to mount on our roofs and aim at Mt Hood.

We're looking forward to seeing everyone again soon over some pizza and beer. Nick Farny, our newest board member and Secretary, was not able to make the September meeting, but is looking forward to the October meeting with that much more excitement. As always, let me or the other Board members know if you have any questions or feedback.

See you all soon,

Aine Mines

AEG Oregon Chapter Chair 2022-2023



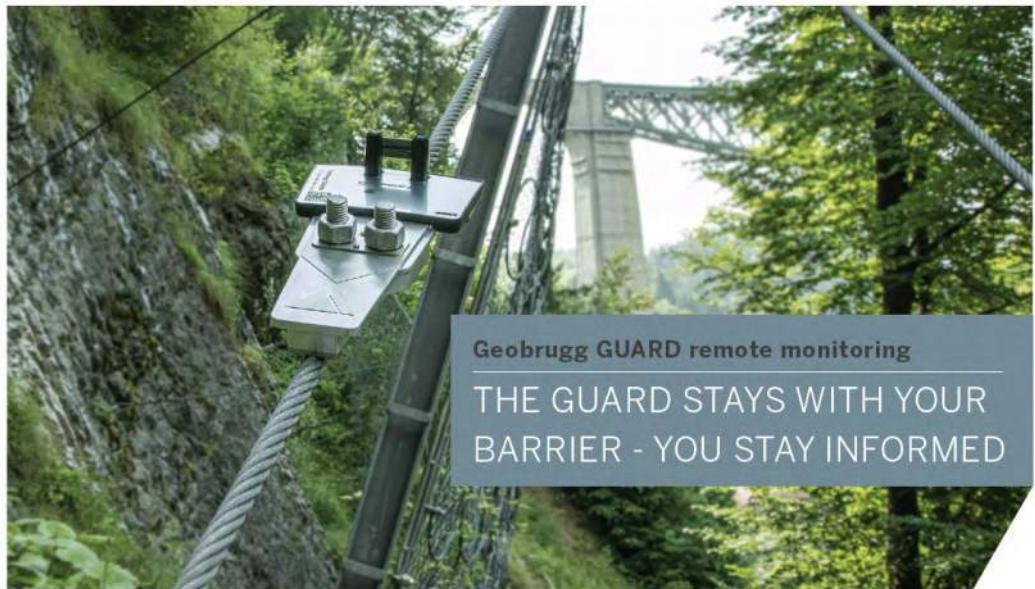
*Geologists are never at
a loss for paperweights.*

Bill Bryson



www.geobrugg.com/guard

GEOBRUGG®
BRUGG
Safety is our nature



Geobrugg GUARD remote monitoring

THE GUARD STAYS WITH YOUR
BARRIER - YOU STAY INFORMED

Geobrugg North America, LLC | 22 Centro Algodones | Algodones, NM 87001 | USA
T +1 505 771 4080 | www.geobrugg.com



PACIFIC
GEOPHYSICS
Applied Geophysics

GEOPHYSICAL SURVEYING
for environmental
and geotechnical
applications

503.501.7846
nikos@pacificgeophysics.com
www.pacificgeophysics.com



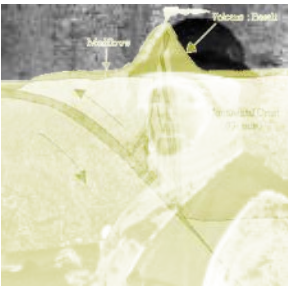
Your Environmental, Geotechnical, Clean Water Drilling Professionals

Work with experienced drillers who run your project with a friendly can-do attitude using state of the art drilling equipment, backed by an experienced management team with the authority to solve problems quickly.



Call: (253) 693-3760

Our Drilling Professionals are Ready to Help



We engineer success stories.

PBS is a trusted source of practical, sustainable solutions to the region's environmental and engineering challenges—enabling projects to succeed and communities to thrive.

PBSUSA.COM

Quality People
Quality Results

37 years
in the
Northwest



ENVIRONMENTAL SERVICES • HEALTH & SAFETY
SURVEY • GEOTECHNICAL ENGINEERING
STRUCTURAL ENGINEERING • CIVIL ENGINEERING



EARTH DYNAMICS LLC

2284 NW. Thurman St.
Portland, OR 97210
(503) 227-7659
info@earthdyn.com

www.earthdyn.com

Providing Quality
Geophysical Services
since 1984

Engineering Geophysics:

- Seismic Refraction/Reflection
- Shearwave Velocity Studies
- Electrical Resistivity Profiling
- Ground Penetrating Radar
- Magnetics/Electromagnetics
- Gravity
- Marine Geophysics

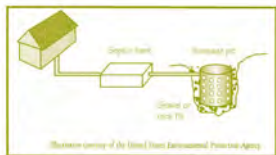
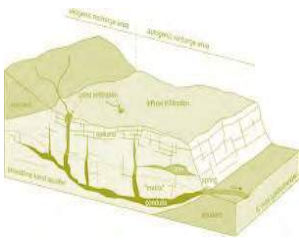
Vibration & Noise Analysis:

- Remote Vibration Monitoring
- Real-time Frequency Analysis
- Construction Monitoring
- Demolition Monitoring
- Blast Design and Monitoring
- Pre-construction Surveys
- Sensitive Equipment Certification

Rock Mechanics:

- Uniaxial Compressive Strength
- Direct and Traixial Shear Strength
- Direct and Indirect Tensile Strength
- Dynamic & Static Elastic Moduli
- Thermal Properties
- Density & Porosity
- Moisture Content





Schematic of a Seepage Pit (Dry Well)



HI-TECH ROCKFALL CONSTRUCTION INC.

HI-TECH Rockfall is a General Contractor that specializes in Rockfall Mitigation and has been the industry leader for over 18 years. Our Highly Trained & Skilled Employees provide us the Highest Safety Record in the Industry.



Products and Services include:

Highwall Stabilization

Rock Scaling

Rock Dowels

Rockfall Barriers

Instrumentation Installation

Wire Mesh Drapery

Rock Bolts

Shotcrete

Avalanche Nets

Rope Access Work

HI-TECH Rockfall Construction, Inc.
P.O. Box 674, Forest Grove, OR 97116

Office: (503) 357-6508
www.hitechrockfall.com



We Service Multiple Industries which include:

Government & Military

Mines & Quarries

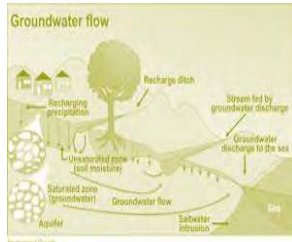
Commercial & Residential

Highways

Railroads

Utilities





**SOIL and FOUNDATION
STABILIZATION SOLUTIONS
GEOTECHNICAL EXPLORATIONS**
in OREGON and WASHINGTON
503.649.8111 info@plisystems.com

- Drilled and Grouted Tie-Back Anchors
- Light Weight Fills: Foam & Cellular Concrete
- Geotechnical Drilling Explorations
- Shoring (temporary & permanent)
- Drainage, Including Horizontal
- Helical Anchors & Piles
- Drilled Shafts (caissons)
- Limited Access Drilling
- Landslide Stabilization

- Elevator Jack Shafts
- Displacement Piles
- Wall Construction
- Sheet Pile Walls
- Injection Boring
- Underpinning
- Rock Anchors
- Rock Coring
- Dewatering
- Pile Driving
- Micropiles
- Shotcrete
- Soil Nails
- Grouting
- Pin Piles
- SPT

*We learn geology the
morning after the
earthquake.*

Ralph Waldo Emerson



Chapter Officers & Committee Chairs

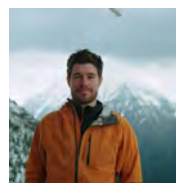


Chair:
Aine Mines,
Cornforth Consultants, Inc.
amines@cornforthconsultants.com

Please
Help.

Program Chair:

**Volunteer
Needed**



Legislature Chair:
Sebastian Dirringer
Cornforth Consultants
SDirringer@CornforthConsultants.com



Chair –Elect:
Ryan Cole
FHWA Western Federal Lands
ryan.cole@dot.gov

This could be
you!

Field-Trip Chair:
Volunteer Needed
Please Help

This could be
you!

Newsletter Editor:
Volunteer Needed
This could be you!



Treasurer:
Nikos Tzetos
Pacific Geophysics
nikos@pacificgeophysics.com

This could be
you!

Membership Chair:
Volunteer Needed
Please Help



Webpage Editor: Rud Moe
PSU Graduate Student
rudlambmoe@gmail.com



Secretary:
Nick Farny
FHWA Western Federal Lands
nicholas.farny@dot.gov

**The Oregon Chapter is also on
the web at**

<http://www.aegoregon.org>

National AEG webpage:

<http://aegweb.org>

Subscribe to the newsletter by sending any e-mail to
aegoregon-subscribe@groups.electricembers.net

PSU Student Chapter President:
Rud Moe
Portland State University



Past-Chair:
Nancy Calhoun
DOGAMI
nancy.calhoun@oregon.gov



Awesome Guiding Force of the Chapter
Mike Marshall
GRI
mmarshall@gri.com

Thanks For Supporting AEG

Members, Volunteers, Aspect Consulting, Cornforth Consultants Inc., DOGAMI, Earth Dynamics LLC., Federal Highways (FHWA), Geobrugg, GRI, Hi-Tech Rockfall, Holt Drilling, NACSE, ODOT, Oregon State University, Pacific Geophysics, PBS Engineering & Environmental, PLI Systems, Portland State University, Western Oregon University

The AEG Oregon Chapter Newsletter

The Association of Engineering Geologists (AEG) contributes to its members' professional success and the public welfare by providing leadership, advocacy, and applied research in environmental and engineering geology. AEG's values are based on the belief that its members have a responsibility to assume stewardship over their fields of expertise. AEG is the acknowledged international leader in environmental and engineering geology, and is greatly respected for its stewardship of the profession.

AEG OREGON CHAPTER NEWSLETTER is published monthly from September through May. Subscriptions are for members of AEG affiliated with the Oregon Chapter or other Chapters, and other interested people who have requested and paid a local subscription fee of \$10.00. E-mail subscriptions are free. News items are invited and should be sent to: Aine Mines, AEG Oregon Chapter Chair-Elect, Cornforth Consultants, Inc., 10250 SW Greenburg Road, Suite 111, Portland, OR 97223, e-mail: amines@ccilt.com, phone (503) 452-1100. Electronic media is preferred. Deadline for submittal is the 25th of the month. Advertising: business card size \$100/yr; ¼ page \$200/yr; ½ page \$350/yr; 1 page \$450/yr.

