



The Official

# OREGON SECTION AEG NEWSLETTER

<http://www.aegoregon.org>

## April Meeting Details

Tuesday, April 19<sup>th</sup>

Location: Old Market Pub  
6959 SW Multnomah Blvd  
Portland, Oregon

6:00 pm Social

6:45 pm Dinner

7:30 pm Presentation

Dinner: Salad and Pizza

\$20 Dinner

Students FREE with RSVP  
(\$5 if no RSVP)

## Reservations:

[RSVP@aegoregon.org](mailto:RSVP@aegoregon.org)

with "AEG Reservation" in  
the subject line by 4 pm  
Thursday Apr 14<sup>th</sup>

There is a \$2 surcharge for  
those who do not reserve by  
the deadline

## Upcoming Meetings:

May 17<sup>th</sup> Jerry DeGraff and  
Student Poster Night



## Debris Flows Following Wildfire in the Western U.S.

### Guest Speaker: Paul Santi

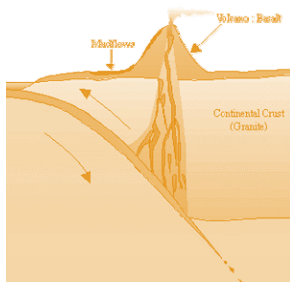
The frequency, intensity, and areal extent of wildfires in the Western United States are increasing. Changes imposed on watersheds during and after burning result in a dramatic increase in debris-flow occurrence and magnitude, which in turn poses risks to human life and property, especially as the urban-wildland interface advances into mountainous areas. Flows can be initiated following wildfire by low intensity rainfall events, and they grow substantially in volume through channel scour while in transit. On average, flow volumes are 3-5 times larger immediately after wildfires, and the volume magnification effects linger for 1-3 years before the watershed recovers. Volume is difficult to predict accurately, but it can be estimated using multiple linear regression models that rely on GIS-friendly inputs such as area burned, rainfall totals, and watershed slope characteristics. A new probabilistic model has been shown to be more accurate and it relies on even fewer terms. Discharge rates and velocity are also difficult to predict, but reasonable ranges are given using databases of previous field measurements. Damming and avulsion of the flows make runout patterns unpredictable, but recent studies have helped to quantify the process.

## Bio: Paul Santi

Paul Santi is the 2016 AEG President. He is also the Department Head of the Department of Geology and Geological Engineering at the Colorado School of Mines, where he has been on the faculty for 14 years. Previously, he taught for 6 years at the Missouri University of Science and Technology, and worked for 6 years as an engineering consultant in San Francisco and Denver. His recent research has focused on analysis, prediction and mitigation design for debris flows, landslide dewatering and analysis, engineering geology pedagogy, and general geologic hazard analysis. He holds Bachelor's degree in Geology and Physics from Duke University, an MS in Geology from Texas A&M, and a PhD in Geological Engineering from the Colorado School of Mines.







## Message from the Chair

Greetings Oregon Section!

I hope that you all are taking advantage of this incredible early spring weather! In March, we carried on our annual tradition of holding a joint meeting with the Association for Women Geoscientists. We were treated to a great presentation from geoarchaeologist Brandy Rinck on the alluvial geoarchaeology in the South Puget Lowland. Thanks to all those who attended! Special thanks also to our outstanding Program Chair, Mike Marshall, for his efforts and success in putting together an incredible presentation line-up year after year.

As we crescendo toward the end of our 2015/2016 Oregon Section meeting season, there are a few important items that I wanted to make sure you all were aware of. First, AEG's Mid-Year Board Meeting is coming up at the end of April and the Oregon Section will be sending a representative, so please let us know if you have any concerns that you'd like to have us address with the national AEG organization leaders. Second, coming up in July, AEG will be holding elections for each region's first Regional Director who will serve on the newly restructured Board of Directors. Our region includes Oregon, Washington, Alaska, Idaho, and Hawaii. **We need to "get out the vote" and have EACH AND EVERY Oregon Section member vote for the candidate that will best represent our Section's interests.** Keep in mind that only up-to-date paid members can vote for the Regional Director, so please take a moment to make sure that your membership status is current.

Our calendar is full of top-notch events for the next two months! First, on Tuesday, April 19th we will have AEG President Paul Santi of the Colorado School of Mines presenting on the topic "Debris Flows Following Wildfire in the Western U.S." As noted in this newsletter, Cascade Drilling is putting on a Drilling and Remediation Demo (program developed in consultation with AEG) for early-career professionals and students on Thursday, April 21<sup>st</sup>. Next up will be Student Night & AEG's Jahns Lecturer, Jerry DeGraff, on Tuesday, May 17<sup>th</sup>. Students should also keep in mind the June application deadline for our two \$1,250 Oregon Section Student Awards toward attending the 2016 AEG Annual Meeting in Kona, Hawaii. Finally, on Saturday, June 11<sup>th</sup>, Dr. Scott Burns will be leading an AEG field trip to Mt. St. Helens. More details to come!

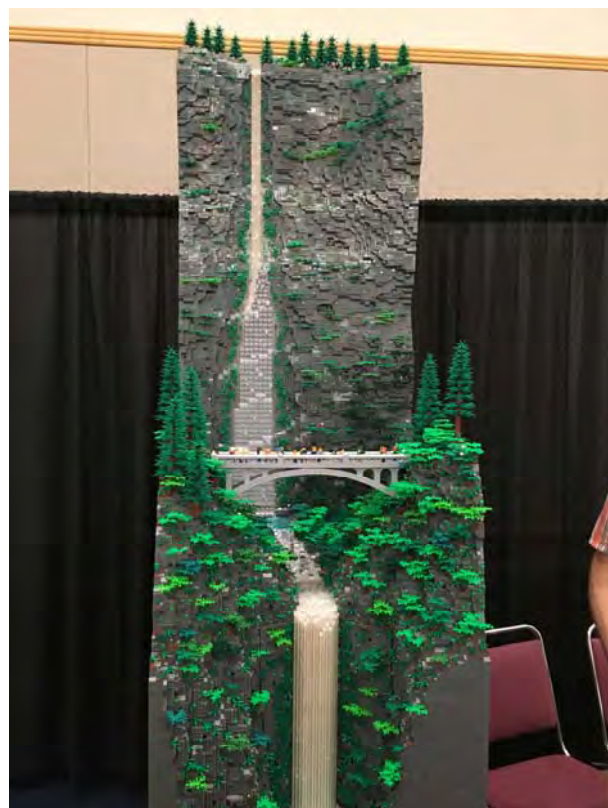
See you on the 19<sup>th</sup> at the Old Market Pub,

Adam Reese, CEG  
Oregon AEG Section Chair

## Photo of the Month

Courtesy of Jeremy Totten

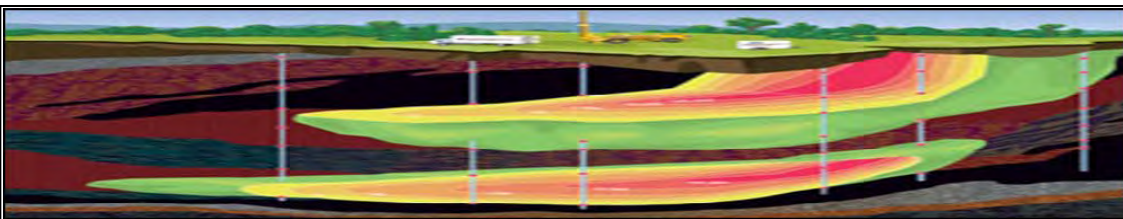
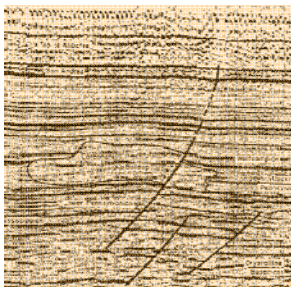
If you like "engineering" and "geology" you should like this sculpture. Multnomah Falls, in Lego. Created by Eric Mattson.



*"Keen observation is at least as necessary as penetrating analysis"*

*Karl Terzaghi*





# Cascade Workshop

## Who:

Consultants and regulators on the cutting edge of the environmental industry

## What:

Interactive workshop exploring advances in environmental drilling, investigation and remediation including live technology demonstrations by industry experts

## Why:

Take advantage of this incredible opportunity network with environmental thought leaders and gain a deeper understanding of the most advanced technologies through this hands-on experience

## When:

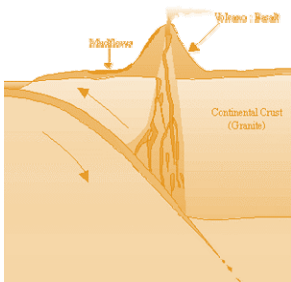
April 21<sup>st</sup>, 8am to 2pm

## Where:

CASCADE | 13600 SE Ambler Rd, Clackamas OR

## Highlights:

- Drilling technologies overview & applications with live sonic and hollow stem auger sampling demonstration
- High resolution site characterization technology and 3-D modeling overview & applications with live electrical conductivity demonstration
- New platforms in remediation with live water injection demonstration

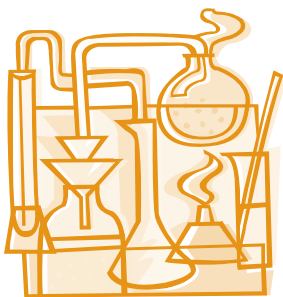


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**ADVANCED REGISTRATION REQUIRED BY APRIL 18**

**We welcome PSU, Consultants & Regulators.**

Submit RSVP & event questions to Andrew Punsoni [Apunsoni@cascade-env.com](mailto:Apunsoni@cascade-env.com)  
include name, contact information and dietary restrictions.

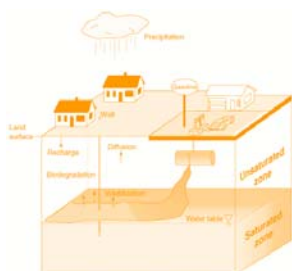
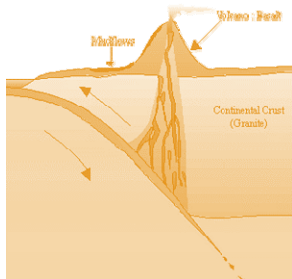


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## Oregon Section of AEG Student Award to Attend 2016 Annual Meeting in Kona, Hawaii

Two awards of \$1,250 each will be given to two Student Members of the Oregon Section of AEG meeting the following criteria:

- **Completion of the *Application for Student Award to Attend the 2016 Annual Meeting*** - Application submittal to the Oregon Section Board ([board@aegoregon.org](mailto:board@aegoregon.org)) of AEG due by 10 p.m. on Friday June 24, 2016.
- **Active AEG Oregon Section Student Membership** - Any Student Member of the Oregon Section of AEG is eligible for this award. If you are not currently a Student Member of AEG, you may register for free online at [www.aegweb.org](http://www.aegweb.org).
- **Presenting at the AEG 2016 Annual Meeting in Kona** - Abstracts for presenting at the 2016 AEG Annual Meeting must be submitted online to AEG no later than May 1, 2016. Those people submitting abstracts should be notified by the AEG Technical Committee of abstract acceptance by June 1, 2016. A copy of the notice of acceptance from the Technical Committee must be submitted with the application.
- **Essay** (250 to 500 words) - Describe in an essay your geologic activities outside of the university classroom and demonstrate how these activities relate to your geologic professional goals. Activities might include attendance at geology-related meetings, professional field trips, mentorship experiences, volunteering in the community, working in a lab, etc.

**Complete applications for this award are due no later than 10 p.m., Friday, June 24, 2016.** Selection of the award winners is at the sole discretion of the Oregon Section Board of AEG. The Oregon Section Board of AEG reserves the right to not select a winner or winners if there are an inadequate number of submissions or if applicants do not meet the minimum requirements. We expect to decide on the winners of the award by July 1, 2016.

See the Application Form on Page 5 for submittal details.

### Additional award opportunities are available to students, including:

- Complimentary registration from AEG to students who volunteer at the 2016 Annual Meeting.
- Various scholarship and grant opportunities through AEG Foundation (amounts vary), described at <http://www.aegweb.org/?page=ScholarshipsGrants>.

### Not a Student?

- Check out the Educators and Young Professional Travel Grants:  
<http://www.aegannualmeeting.org/#!registration/ch6q>



## Application for Oregon Section of AEG Student Award to Attend the 2016 AEG Annual Meeting

Student Name: \_\_\_\_\_

AEG Student Member Number<sup>(1)</sup>: \_\_\_\_\_

College/University: \_\_\_\_\_

Address (if your address will be different over the summer, please supply both your current and summer address, if applicable):  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

E-mail: \_\_\_\_\_

Phone number: \_\_\_\_\_

Title of Presentation <sup>(2)</sup>:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Attach a 250- to 500-word essay<sup>3</sup> describing your geologic activities outside of the university classroom and demonstrate how these activities relate to your geologic professional goals. Activities might include attendance at geology-related meetings, professional field trips, mentorship experiences, volunteering in the community, working in a lab, etc.

1 - Student membership with AEG is free. An application is available at  
[http://www.aegweb.org/docs/my-member-documents/student\\_new\\_graduate\\_member\\_application.pdf](http://www.aegweb.org/docs/my-member-documents/student_new_graduate_member_application.pdf)

2 - Submit a copy of your abstract with this application, and a copy of the notice from the AEG Technical Committee indicating your abstract was accepted for presentation at the 2016 AEG Annual meeting.

3 - Attach essay and additional supporting documentation, if applicable.

Applications are due no later than 10 p.m., Friday, June 24, 2016. It is the intent of the AEG Oregon Section Board to select the award winners by July 1, 2016. Selection of the award winners is at the sole discretion of the Oregon AEG Board.

Please submit the application package via email to all five members of the Oregon Section Board:

Oregon Section Chair, Adam Reese:

[AReese@Apexcos.com](mailto:AReese@Apexcos.com)

Oregon Section Chair Elect, Stephen Hay:

[stephen56362@gmail.com](mailto:stephen56362@gmail.com)

Oregon Section Treasurer, Mark Swank:

[mark.swank@pbsenv.com](mailto:mark.swank@pbsenv.com)

Oregon Section Secretary, Chris Humphrey:

[geohumphrey@yahoo.com](mailto:geohumphrey@yahoo.com)

Oregon Section Past Chair, Linda Mark:

[lmark@esassoc.com](mailto:lmark@esassoc.com)



*"The earth is large and  
old enough to teach us  
modesty."*

*Hans Cloos*

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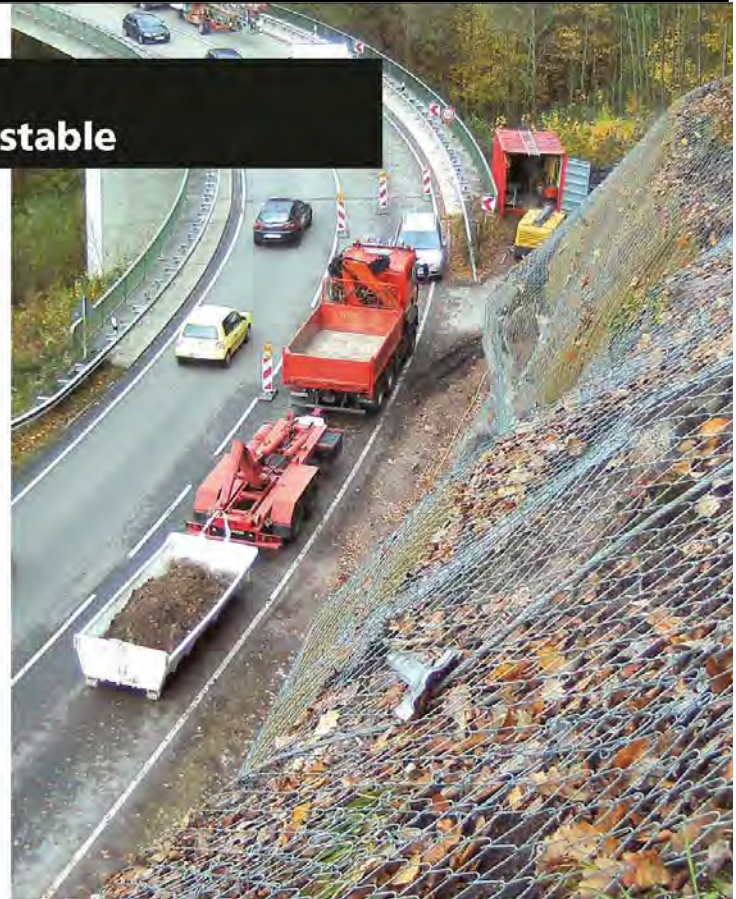
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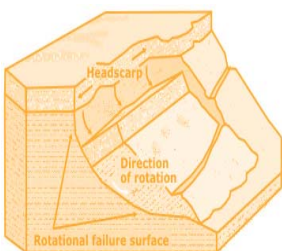
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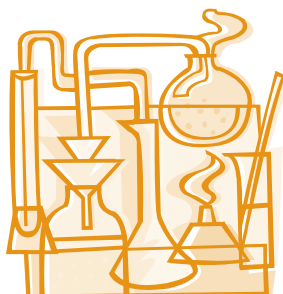
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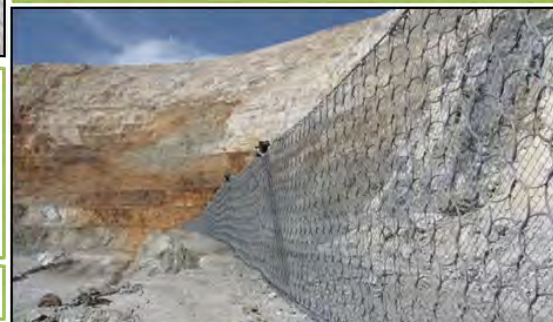
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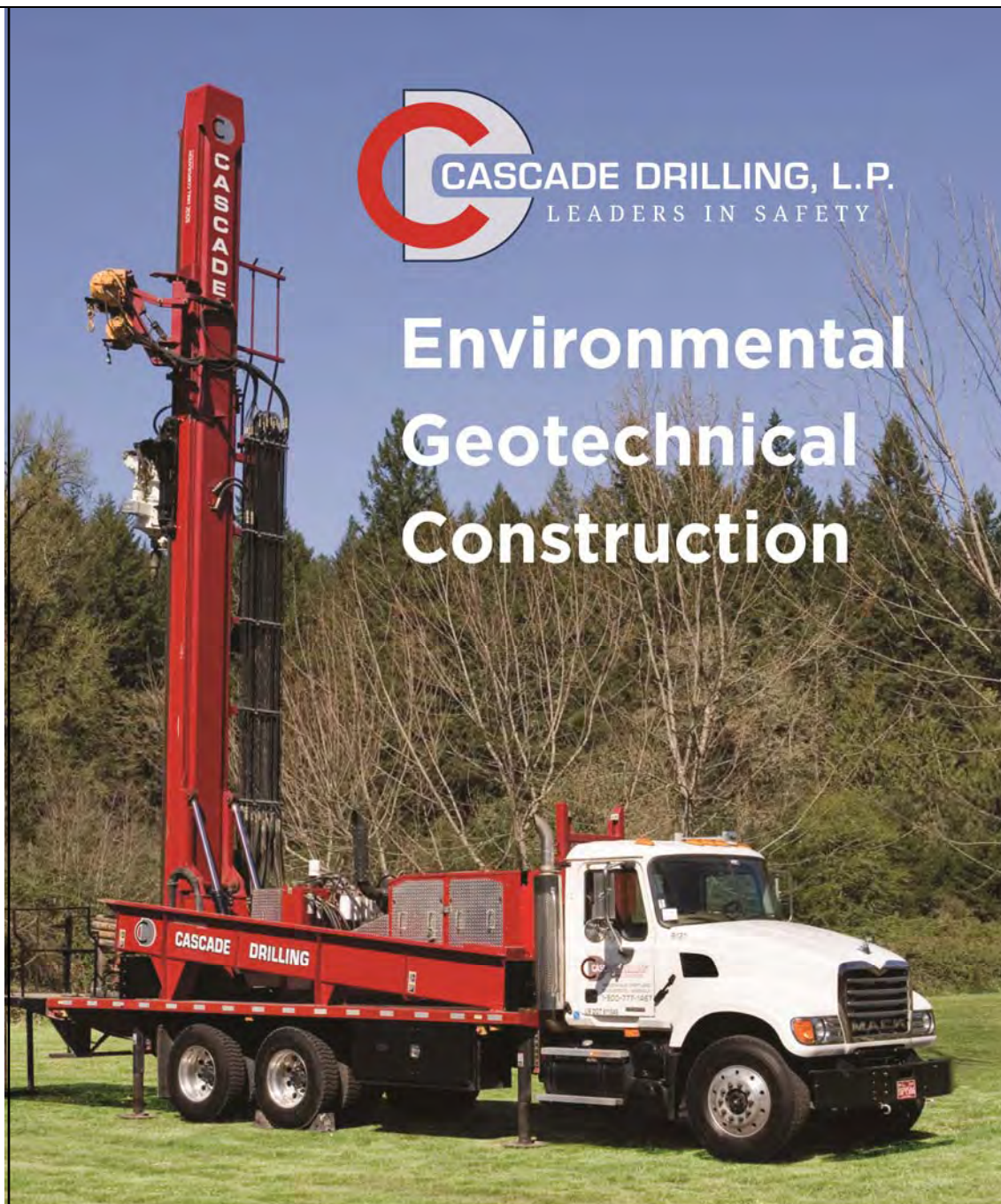
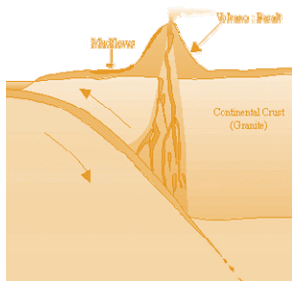
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penetrating analysis”*

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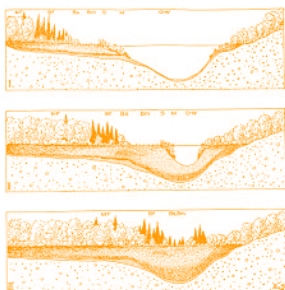


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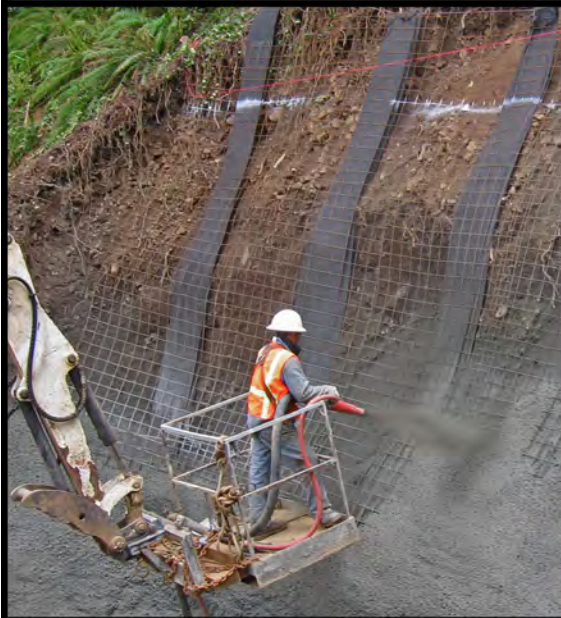
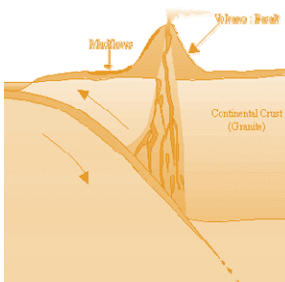




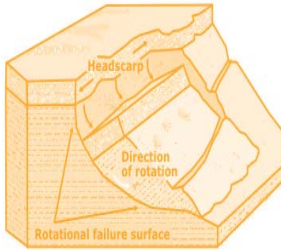
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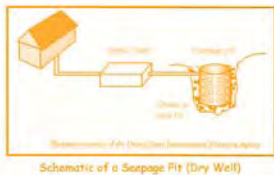






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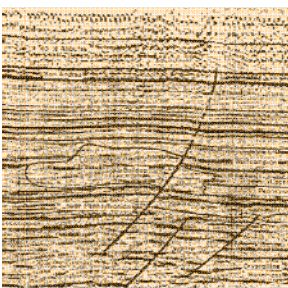
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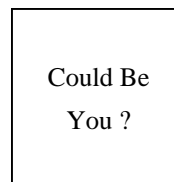
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AReese@apexcos.com



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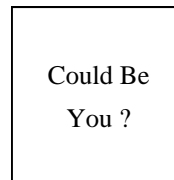
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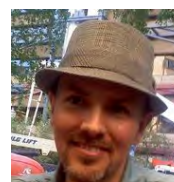


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## The Oregon Section Newsletter

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