

Spring 2012 CEU Seminar

Presented by the Washington State Ground Water Association

Agenda

Speaker

7:30-8:00 Registration

8:00-8:15 Welcome

WSGWA

8:15-10:15 **Regulations Update**

Department of Ecology

This session will cover any new developments in Washington's well construction, licensing statutes and regulations.

10:15-12:15 **Bits, Bits n More Bits-It's
About Bits**

Steve Kaser: Forge Pacific

Choosing the right bit will enable the driller to successfully and efficiently drill through the various formations found in the state of Washington. Caring and using the bits correctly will extend their life.

12:15-1:00 Lunch

1:00-2:00 **The "Other" Side of Drilling: Resource
Protection Wells & Geotechnical Borings**

Mike Piechowski: Robinson Noble

A significant portion of the drilling done in Washington State is not related to water wells, but rather is done on environmental or geotechnical projects. This session will discuss drilling techniques, equipment tips, sampling protocols, health and safety concerns, and other lessons learned while watching over your shoulders for the past 20 years or so.

2:00-3:00 **Application of Downhole Geophysical
Surveys in Well Drilling**

Mike Piechowski: Robinson Noble

Downhole geophysical surveys are not often used in typical drilling projects, but can be an invaluable tool in the evaluation and correlation of formations drilled. A variety of logging tools are available, several are capable of logging formations through a cased borehole. This session will discuss techniques that are typically available, where they can be applied, the proper way to conduct a survey, and what can be interpreted from the results.

3:00-4:00 **How to Help Your Well
Avoid a Life of Slime**

Leroy Palmer: AmeriWest Water Services, Inc.

Comprehensive diagnosis and solutions for reoccurring coliform problems, fouling, and other slime issues. Noticing the formations and movement in the well along with proper well maintenance will be tools used to troubleshoot the problem.

Dates and Locations for Spring 2012:

3/9 La Quinta, 1425 E. 27th St., Tacoma, WA 98421

3/10 Kelso Red Lion, 510 Kelso Drive, Kelso, WA 98626

3/30 Mirabeau Park Hotel, 1100 North Sullivan Rd., Spokane, WA 99037

3/31 Pasco Red Lion, 2525 N. 20th Ave., Pasco, WA 99301



Continuing Education Unit Syllabus

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Instructor Name: (Last, First, MI)

Kaser, Steve D

Name of Approved Provider:

WSGWA c/o Colleen Mastro 206-351-6384

colleenmastro@hotmail.com

Contact Person: (If Different from Instructor)

Telephone: 503-538-2001

Cell 503-881-9255

Fax : 503-538-2004

Mailing Address:

Forge Pacific LLC

2601 Wynooski Road, Newberg Oregon 97132

Email: stevekaser@forgepacific.com

Part I: Statement of Qualifications

Please provide a statement about your qualifications.

I have been in the drilling industry continuously since 1968. My career started on the North Slope of Alaska drilling seismic holes. In 1971 I returned to Oregon and began drilling water wells. In 1976 I became the drilling product manager for Mitchell Lewis and Staver Company in Portland and later for Forge Welkin and currently with Forge Pacific. As a Drilling Product Manager it was and continues to be my responsibility to come up with drilling products making them available to the water well industry in the Western US, making sure they not only help the contractor do a better job but also conform to the various states regulations. Throughout my career I have acquired a vast knowledge and understanding of the drilling conditions in the Western US from interacting with the drilling contractor and am in constant contact with the majority of drilling contractors helping them solve their drilling problems. My 44 years experience in the drilling industry will serve me well in my presentations.

Part II: Course Description

Please provide a detailed summary for each question. (All questions must be answered.)

Course Title:

Bits, Bits n' More Bits-It's all about Bits*

Course Date(s):2012: 3/9, 3/10, 3/30, 3/31

Start Time: 10:15am Finish: 12:15pm

Course length in hours:

2 Hours

Cost for Workshop:

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Please provide listing of textbooks, supplemental readings, or equipment, such as calculators or safety equipment required.

Please provide driving directions:

3/9/12 LaQuinta Inn, 1425 E. 27th St., Tacoma, WA 98421

3/10/12 Red Lion Kelso, 510 Kelso Drive, Kelso, WA 98626

3/30/12 Mirabeau Park Hotel, 1100 North Sullivan Road, Spokane, WA 99037

3/31/12 Red Lion Pasco, 2525 N. 20th Ave., Pasco, WA 99301

If you require this document in an alternate format, please contact the Water Resources Program at (360) 407-6600 or TTY (for the speech or hearing impaired) at 711 or 1-800-833-6388.

Please provide a course outline which details the specific subjects to be taught and any testing required. Use additional pages if needed.

*This class deals with all the different types of drill bits available today, their care and use.

A-Tri cone Bits, TCI and mill tooth

B-Drag bits, 3 & 4 way chevron and blade

C-Claw

D-Hammer-CC,DC and FF

E-PDC

F-Overburden, winged type and concentric

Part III: Statement of Relevance

How does this course pertain to the business, technical, regulatory, or safety aspects of well construction? Please include the goals and objectives of this class.

CLASS GOAL

**This class deals with all the different types of drill bits available today that will enable the driller to successfully and efficiently drill the varied formations found in the State of Washington.

CLASS OBJECTIVES

* To present the drilling community with information on bit characteristics, dimensional data and performance which will give him the knowledge to select the best bit possible to use which will aid him in meeting the many constructions standards he is faced with.

Will this class be open to all who desire to attend? Yes No

What is the minimum number of students required to put on this class? No minimum

Part IV: Comments and Signatures

Comments:

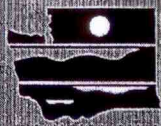
The information provided in this application is true and accurate.

Instructor Signature: Steve D Kaser

Title: Drilling Product Mgr.

Date : 1/31/2012*

If you require this document in an alternate format, please contact the Water Resources Program at (360) 407-6600 or TTY (for the speech or hearing impaired) at 711 or 1-800-833-6388.



Continuing Education Unit Syllabus

ECOLOGY
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Agency Use

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Instructor Name: (Last, First, MI) Piechowski, Michael F.	Name of Approved Provider: WSGWA c/o Colleen Mastro 206-351-6384 colleenmastro@hotmail.com
Contact Person: (If Different from Instructor)	Telephone: 253-475-7711 Cell : 253-686-0319 Fax : 253-472-5846
Mailing Address: Robinson Noble, Inc. 3011 South Huson, Suite A, Tacoma, WA 98409	Email: mpiechowski@robinson-noble.com

Part I: Statement of Qualifications

Please provide a statement about your qualifications.

I am a licensed Hydrogeologist in Washington State. I have a Master's Degree in Geology, as well as approximately 20 years of practical experience working with water wells, resource protection wells, and geotechnical and environmental borings, completed with most types of drilling rig in a variety of geologic settings. I have completed and interpreted a number of geophysical logs during my career, in wells as deep as 1,500 feet.

Part II: Course Description

Please provide a detailed summary for each question. (All questions must be answered.)

Course Title:	Course Date(s):2012: 3/9, 3/10, 3/30, 3/31	Course length in hours:	Cost for Workshop:
Application of Downhole Geophysical Surveys in Well Drilling	Start Time: 1:00pm Finish: 2:00pm	1 Hour	///

Please provide listing of textbooks, supplemental readings, or equipment, such as calculators or safety equipment required.

Supplemental Reading – Chapter 4 of Groundwater and Wells, Third Edition, Robert J. Sterrett

Please provide driving directions:

- 3/9/12 LaQuinta Inn, 1425 E. 27th St., Tacoma, WA 98421
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Please provide a course outline which details the specific subjects to be taught and any testing required. Use additional pages if needed.

Downhole Geophysical Surveys
Types of data collected

- Resistivity
- Natural Gamma
- Temperature
- Conductivity

Caliper
Induction
Others

What these data tell us
Where is logging applicable/where won't it work
Proper hole preparation
Additional information necessary for interpretation
Accuracy (or lack thereof)
Other lessons learned

Part III: Statement of Relevance

How does this course pertain to the business, technical, regulatory, or safety aspects of well construction? Please include the goals and objectives of this class.

CLASS GOAL

Explain how and where downhole geophysical logging can be applied to enhance the understanding of the subsurface.

CLASS OBJECTIVES

Explain the techniques typically used and how they can add to the understanding of the subsurface. Explain where geophysical logging can be used and what steps are necessary to get the most benefit from logging. Explain that the interpretation of the geophysical data hinges upon the other available data.

Will this class be open to all who desire to attend? Yes No

What is the minimum number of students required to put on this class? No minimum

Part IV: Comments and Signatures

Comments:

I'll certainly be talking with others, including well drillers and other hydrogeologists, as I research material for this class and prepare my presentation.

The information provided in this application is true and accurate.

Instructor Signature:  Title: Senior Hydrogeologist Date: Feb 3, 2012

I have reviewed this report and, in my judgment, the process has been properly followed.

Reviewer's Signature: _____ Title: _____ Date: _____

