



# Rocky Mountain AICHE News

January 2004

Volume 13 Number 4

## January Section Meeting: The Sampling Theory

The optimization of a mining operation requires precise ore grade control, metallurgical accounting, and laboratory sampling protocols, which are implemented by using accurate and flawless sampling systems. The same statement applies to chemical plants, cement plants, and many other industries. Good sampling practices, and sampling technologies in these fields have been historically poor and too many existing sampling systems available on the market are flawed in many ways. This is mainly the result of a poor understanding of the Sampling Theory, and the natural result of international standards on sampling that fail to present the Sampling Theory in a logical way, that still promote non-probabilistic sampling, and that fail to address the important details that make a correct sampling system. Many standards barely mention the Sampling Theory in appendices when it should be clearly the main body of a reliable standard on sampling. As a result, many standards show only little expertise in the Sampling Theory. Conventional statistics should only be a scientific tool for the Sampling Theory to reach its height, which has always been well understood by its creators. Conventional statistics can indeed be addressed in appendices of standards in sampling, but not the other way around. Until the Sampling Theory is recognized as the main body of a standard on sampling, incorrect sampling technologies will plague the market, and make it impossible for many industries to optimize their processes. The presentation will suggest a logical strategy on how to solve these difficulties.

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### January Section Meeting

- Speaker:** Francis Pitard  
President of Francis Pitard Sampling Consultants
- Topic:** The Sampling Theory: Dividing a complex problem into a sum of simpler ones
- Date:** Tuesday, January 20th
- Time:** 6:00 Registration  
6:30 Dinner  
7:30 Presentation
- Location:** Double Tree Hotel  
8773 Yates Drive  
Westminster, CO
- Menu:** California Sunset Buffet featuring London Broil, Sour Dough Pizza, or Citrus Chicken Breast. Buffet also includes salads, fresh fruit and vegetables, rolls, desserts and beverage
- Cost:** Non-Members: \$18  
Members: \$15  
Students & Unemployed: \$7.50

Please RSVP by **Friday, January 16th**. Indicate your name, phone number, and number of attendees by e-mailing Glenn Sprenger at [Glenn.Sprenger@VECO.com](mailto:Glenn.Sprenger@VECO.com). Alternatively, you may leave a voice mail for Glenn at 303-938-6642.

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Our speaker, Mr. Francis F. Pitard is a consulting expert in Sampling, Statistical Process Control, and Total Quality Management. He is President of Francis Pitard Sampling Consultants [http://www.fpscsampling.com], and Technical Director of Mineral Stats Inc. [http://www.mineralstats.com] in Broomfield, Colorado. He provides consulting services in many countries. Mr. Pitard has six years of experience with the French Atomic Energy Commission and fifteen years with Amax Extractive R&D. He teaches Sampling Theory, SPC, and TQM for the Continuing Education Offices of the Colorado School of Mines, for the Australian Mineral Foundation, and for the Mining Department of the University de Chile. He has degrees in chemistry from the Gay-Lussac Institute in Paris and from the Academy of Paris. His clients include more than 250 corporations around the world.

## NATIONAL ENGINEERS WEEK

Every February many across the country come together to celebrate the accomplishments of the

Engineering community during National Engineers Week. This year, National Engineers Week is February 22-28, 2004. Various corporations and engineering societies hold events, competitions, and contests, to introduce their communities to the various contributions of Engineers in their area. One of the local events here in Colorado is an annual dinner with representatives from various societies, corporations, and the local Engineering community. This year's dinner is co-sponsored by the Colorado Engineering Council and the Professional Engineers of Colorado and will be held on Friday, February 27, 2004 at the DoubleTree Hotel at 32<sup>nd</sup> and Quebec. This year's speaker will be Ken Wright, P.E., who will be giving an exciting presentation on the Ancient Water System at Mesa Verde used by the Anasazi Indians.

If interested in attending, please feel free to print out the form below and buy a ticket. Also, please share with your respective societies, friends, and corporations. We hope all of you can join us.

David Davenport  
Secretary, Colorado Engineering Council  
CEC Representative, NSBE AE-Denver

### 2004 Engineers Week Annual Dinner "Turning Ideas into Reality"

Date: Friday, February 27, 2004

Place: DoubleTree Hotel, South of I-70 at 32nd & Quebec

Program: Ken Wright, P.E.

Topic: Ancient Water System at Mesa Verde

Time: Reception: 6:00 – Dinner: 7:00 pm

Cost: \$30.00 per person

Corporate Table of 8 = \$240.00 (Includes full signage and name in program, if received by February 16th.)

Program Advertising Size of Program – 5 ½ x 8 ½  Full Page: \$125.00  Half Page: \$75.00  Business Card: \$40.00

----- **All Engineering Societies are encouraged to bring their banners.** -----

Please make reservations for the Engineers Week Dinner for:

Name / Contact: \_\_\_\_\_

Company: \_\_\_\_\_

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

- Enclosed is our check for \_\_\_\_\_ people.
- Enclosed is our check for \_\_\_\_\_ Corporate Tables.
- Enclosed is our check for \_\_\_\_\_ advertisement. Call regarding ad copy.
- We plan to bring our banner.

Fax, email, or mail form to: Professional Engineers of Colorado

11166 Huron Street, Ste 27

Denver, CO 80234

Phone: 303-480-1160 Fax: 303-458-0002

Email: [pea@mining.com](mailto:pea@mining.com)

## ***AIChE Meetings***

**2004**

Apr 25-Apr 29 2004 Spring Nat'l  
New Orleans, LA

May 3-6 Offshore Tech.  
Houston, TX

June 20-23 Process Develop.  
Symposium  
Oakbrook, IL

June 29-July 1 CCPS Annual  
Int'l  
Orlando, FL

Sept 20-23 Safety in  
Ammonia Plants  
Denver, CO

Oct 7-8 Engineering &  
Construction  
Contracting  
Colorado Spg, CO

Nov 7-12 2004 Annual Mtg.  
Austin, TX

**2005**

Apr 10-14 2005 Spring Nat'l  
Atlanta, GA

For further information, contact  
National AIChE.

### **National AIChE Contact Info**

#### **AIChExpress Service Center:**

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**Career Services:** 212/591-7670

**Govt. Relations:** 202/962-8690

**Govt. Relations Fax:** 202/962-8699

**Web Page:** <http://www.aiche.org>

## ***Rocky Mountain AIChE Officers***

James Meyer	Director	303/462-7276
Kevin Milliman	Chair	303/804-2374
Glenn Sprenger	Vice-Chair / Program	303/938-6642
Curtis Dominicak	Secretary	303/969-9416
Craig Wildemuth	Treasurer	303/791-6307
Vacant	Membership	
Martin Vorum	Employment Info	303/789-0848
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Rocky Mountain AIChE News is published eight times a year by the Rocky Mountain section of AIChE. Opinions expressed herein are those of the authors and are not necessarily those of AIChE nor the officers of this section.

The objectives of AIChE are to advance chemical engineering in theory and practice, to maintain a high professional standard among its members, and to serve society, particularly where chemical, engineering can contribute to the public interest.

## **Articles for Upcoming Newsletters**

Please submit articles for future newsletters to the editor at [mmoes@ekiconsult.com](mailto:mmoes@ekiconsult.com). Let us know of interesting technical items you're working on or are familiar with, what is happening in the Chemical Engineering programs or AICHE Student Chapters at the universities in the Section, unique and useful web sites, or any other information your fellow Section members may find of interest.

### ***LOOKING FOR AN EMPLOYEE??***

*If you have a position open for a chemical engineer, send a notice to [mmoes@ekiconsult.com](mailto:mmoes@ekiconsult.com) and we'll post it in the newsletter and on the website ([aiche-rm.org](http://aiche-rm.org)).*

### **SPEAKERS FOR UNIVERSITIES**

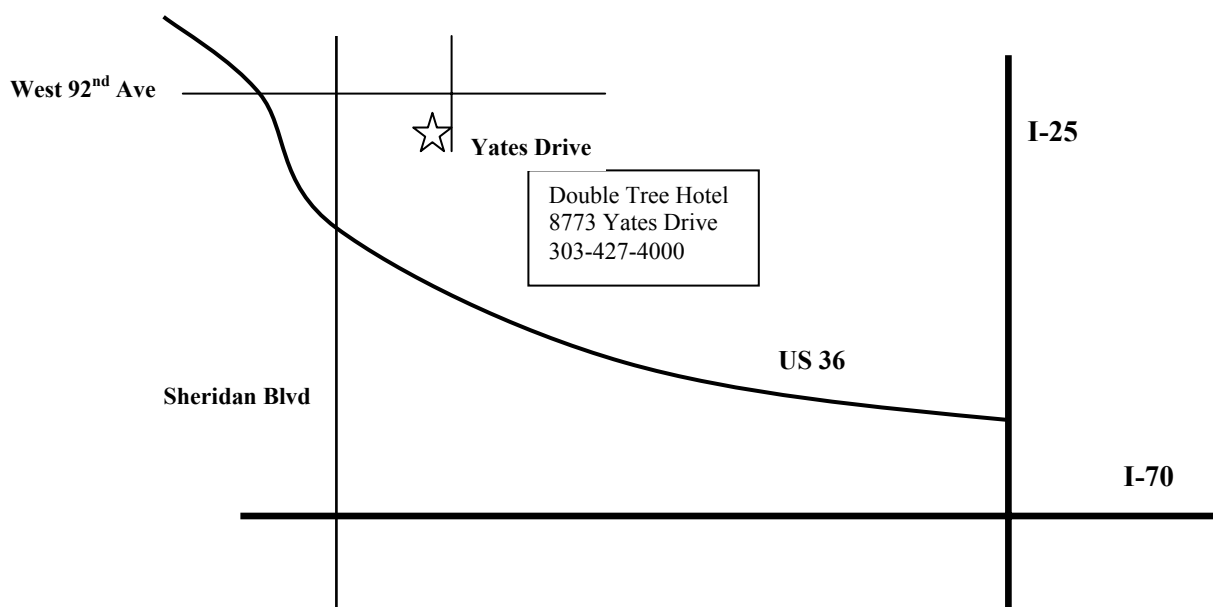
Are you willing to give a presentation to students at the local universities? The AIChE student chapters frequently request speakers from the AIChE Rocky Mountain Section. If you would be willing to meet with the students and share information about careers, job searches, industry experience or technical topics, please contact the Student Chapter Liaison Collin Greenwell at 720-497-2133.

Rocky Mountain AIChE News  
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On the Web at:

<http://www.aiche-rm.org>

*Send your E-MAIL address to  
[mmoes@ekiconsult.com](mailto:mmoes@ekiconsult.com) to receive  
this newsletter electronically!*



**DIRECTIONS:** Take I-25 to US 36 (Boulder Turnpike). Travel west on US 36. Exit at Sheridan Blvd and go north (to the right). Turn right at the first light which is W. 92<sup>nd</sup> Ave. Turn right at the first street which is Yates Drive. The Double Tree hotel is at the bottom of the hill on the right hand (west) side.