

**American Institute of Chemical Engineers**  
Dallas Section

Regular Meeting Minutes  
Prepared by José Ramiro Rodríguez  
March 30, 2010

Meeting Info:

Date: March 23, 2010

Time: 6:00 to 9:00 PM

Place: Two Guys from Italy Restaurant  
11637 Webb Chapel Rd.  
Dallas, TX 75229

Attendees:

<u>Name:</u>	<u>Position:</u>	<u>Phone:</u>	<u>e-mail:</u>
Keith Miller, PE	Chair	214-206-2711	<a href="mailto:keithmiller@atmosenergy.com">keithmiller@atmosenergy.com</a>
Nancy Garnett, PE	Vice Chair	972-647-3414	<a href="mailto:ngarnett@txi.com">ngarnett@txi.com</a>
José Ramiro Rodríguez Perazza, PE	Secretary	940-725-0493	<a href="mailto:jrodriguezperazz@aol.com">jrodriguezperazz@aol.com</a>
Fred Eisen, PE	Director		<a href="mailto:thefeisens@earthlink.com">thefeisens@earthlink.com</a>
Bob Short, PE	Director	972-820-7450	<a href="mailto:blshort@verizon.net">blshort@verizon.net</a>
Neal Abernathy	Director	214-668-1601	<a href="mailto:NealAber@aol.com">NealAber@aol.com</a>
Marvin Gearhart	Speaker		
Daniel U	Member	214-263-2606	<a href="mailto:u.daniel@gmail.com">u.daniel@gmail.com</a>
Harvey Slaton	Member	214-206-2739	<a href="mailto:Harvey.slaton@atmosenergy.com">Harvey.slaton@atmosenergy.com</a>
Doug Nurmi	Member	214-325-0911	<a href="mailto:dbnurmi@gmail.com">dbnurmi@gmail.com</a>
Laura Navarro	Member	214-567-7679	<a href="mailto:laura_jordan_navarro@alumni.utexas.net">laura_jordan_navarro@alumni.utexas.net</a>
Michele Gardill	Member	772-347-0623	<a href="mailto:michele.gardill@mkcorp.com">michele.gardill@mkcorp.com</a>
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Chuck Neubecker	Member	972-403-0608	<a href="mailto:neubecker1@verizon.net">neubecker1@verizon.net</a>
Roger Kaiser	Member	972-886-0432	
Leo Faciane	Member	972-647-6745	<a href="mailto:lfaciane@txi.com">lfaciane@txi.com</a>

Excused:

Don Abrahamson	Treasurer	972-443-4942	<a href="mailto:donald.abrahamson@celanese.com">donald.abrahamson@celanese.com</a>
James Meier, P.E.	Director	972-969-3930	<a href="mailto:james.meier@pxd.com">james.meier@pxd.com</a>

Officers and Directors Meeting

The Chair called the meeting to order at 6:10 PM. Present at the moment were the Chair, the Vice Chair, the Secretary and three Directors (Eisen, Short and Abernathy).

Upon excusing the Treasurer, who was at the Dallas Annual AIChE Meeting, the chair presented the Treasurer's report. The balance in our checking account is now \$10,332.61. The Treasurer's report was unanimously approved upon motion by Bob Short, seconded by Fred Eisen.

The Secretary summarized the minutes of the previous meeting, copies of which had been distributed by the Secretary. The minutes were approved unanimously upon motion by Bob Short and second by Fred Eisen.

The following subjects were discussed in the directors meeting:

- a. Possibility and desirability of changing meeting location. After a discussion of reasons in favor and against, and the mentioning of possible alternate locations, the subject was tabled for further discussion in the next meeting.

- b. Reasons for low attendance to the meetings. Various ideas were discussed. The Secretary suggested that we must somehow improve the members' perception of the value of participating in these meetings. The subject was tabled for further discussion in future meetings.
- c. Subject of next meeting's talk. J. Ramiro Rodríguez will make a presentation on Communications within the Corporate Organization. He mentioned that this is a shortened version of a four-hour presentation and workshop that he has previously conducted. The specific topics for the presentation were left open for Mr. Rodríguez to choose.
- d. IRS Form 990-N for tax-exempt organizations: The chair indicated that he has been working on the filing of this form for the Section as soon as he obtains the Employer Identification Number (EIN) for use by the Section. He would be in communication with the directors on this subject.
- e. Subject of today's talk: The Vice Chair informed for the record that the speaker for tonight would be Eng. Marvin Gearhart of Gearhart Companies, on the subject of horizontal drilling for oil and gas in the Barnett Shale.
- f. Election in May meeting: The Chair announced the upcoming election on May 24, 2010. During informal considerations, Vice Chair Garnett accepted to be nominated for Chair and Secretary Rodríguez accepted to be nominated for Vice Chair.

Upon no further business, and upon approval of motion duly made by the Secretary and seconded by Director Eisen, the meeting was adjourned.

#### Section Meeting

The Chair announced that the speaker of the night would be Marvin Gearhart of Gearhart companies, who would be speaking about Horizontal Drilling technology.

He announced that there would be an election of new officers in the May meeting. Asked for volunteers and nominations as soon as possible. Informed that write-ins would be allowed in the May election.

The Chair also announced the receipt of an invitation form TSPE for the submission of volunteers to be "shadowed" by high school students, for vocational orientation, on April 26<sup>th</sup>. Volunteers were encouraged to contact the Chair for further details.

The Chair presented the Treasurer's report to the membership. He indicated that the exact amount in the checking account was \$10,332.61. All pending expenses have been covered.

The Treasurer's Report was approved upon motion duly processed, presented by Vice Chair Garnett and seconded by Director Eisen.

The Secretary read a short summary of the previous meeting minutes. The minutes were approved by consensus.

Upon no further business the meeting was adjourned.

#### Presentation

Speaker: Marvin Gearhart, Gearhart Companies

Topic: Horizontal Drilling Technology in Barnett Shale – 1 hour CEUs

Mr. Gearhart was introduced by Director Short, who summarized his long and successful career as an entrepreneur in the oil industry. A brief summary of his extensive biography is provided below.

Biography:

Marvin Gearhart and Harrold Owen founded the Gearhart-Owen Oil Well Services Company in 1955 in Fort Worth, Texas. By 1984 and at the peak of the oil-drilling boom, sales were over \$600 million and the company had more than 12,000 employees in 27 countries. After the mid eighties collapse of the drilling industry, the company was merged with the Halliburton Company. In 1988 Marvin moved on to start Rock Bit International. That company was sold to a venture capital group in 2005.

At this time, Marvin has started a new company specializing in directional drilling tools and services needed for drilling and competing wells such as in the Barnett Shale. The company is called Gearhart Companies.

Marvin became a member of the Legion of Honor of the Society of Petroleum Engineers in 2000. He also was made an "honorary member" of the Society of Professional Well Log Analysts in 1986. He served as President of The Fort Worth Wildcatters in 1983. He served as a distinguished lecturer on measurement-while-drilling services in 1982. Honorary awards include Fort Worth Chamber of Commerce-Texas Wesleyan College Businessman of the Year award in 1982.

From 1968 until 2005 he was an active member of the Board of Trustees of Texas Christian University and presently serves as an emeritus trustee. He has also been involved as an advisory director of the Institute of Energy recently established at TCU for the purpose of training personnel in the new technologies needed in the industry.

Description of presentation:

Mr. Gearhart described the Barnett Shale as a many square miles layer several miles under a large section of the Metroplex, presenting a map of the shale. He passed around samples of the shale and drillings from the Shale.

Mr. Gearhart described several types of technology developments that have helped in the development of horizontal drilling, improving the yield of gas and oil wells. Among them are:

Fracturing of the shale: This frees oil that is otherwise unavailable. The mentioned that the first time this technique was used was in 1949.

Use of "slick" water: water, treated with detergents to reduce its surface tension and resistance to flow, that is injected for the fracturing process. The additives permit the use of less power to achieve effects at greater depths than when using regular water.

Telemetry of the drill: signals from the drill permit the real time observation of the location of the drill. Improving in the accuracy of the drills.

Global Positioning Satellite (GPS) units: these have been adapted to electronic drill followers that can actually record the path of the drill in three dimensions. This helps in the compliance with surveying requirements established in regulations with utmost accuracy. One of these units was shown and demonstrated during the meeting, permitting first-hand observation of the units accuracy as it was being moved in the room.

He emphasized that the location of the drill bit is extremely important because perforating into lower aquifers of highly mineralized water can potentially cause cross flows into the upper aquifers containing potable water. Proper sealing drill holes while passing upper aquifers as well as avoiding drilling under the shale are important strategies essential to the minimization of the environmental impact of oil drilling.

The presentation ended with a questions and answers period.

Vice Chair Garnett presented a token of appreciation to Engr. Gearhart.