

## Summary

- p.3 Letter from the Board  
**Quality, Excellence, Innovation**

## Statistics

- p.6 **Oil and gas in numbers**  
**Statistical Brochure**

## Analyses and trends

- p.8 **The ISO and its challenges**  
The *International Organization for Standardization (ISO)* is an international body formed by National Standardization Institutes belonging to 148 countries: its General Secretariat is located in Geneva, Switzerland, and coordinates the whole system. What challenges will have to be faced in the next few years? What is the relationship kept with other organizations of this kind? What degree of participation do they have in the Oil and Gas Industry? The answers provide us with a general outlook of present events and a detail of strategic goals for the next few years.  
*By Alan Bryden, General Secretary of the International Organization for Standardization (ISO)*

- p.12 **Diagnose and evaluation of quality management**  
The IAPG Quality Management and Excellence Committee, published a research paper about 'Quality Management Evaluation' amongst the company members of the Institute, which made known the state of maturity the Oil and Gas Industry in Argentina have in respect of the above. The President of the Committee, Jorge Rizzo, published this work during the Second Latin-American Congress for Quality in the Petroleum and Gas Industry, which took place in Bariloche at the end of March.

- p.16 **II Latin American Congress on Quality and Excellence. The Bariloche conclusions**  
From 28th to 31st March last, the II Latin American Congress for Quality in the Oil and Gas Industry, organized by the Quality Management and Excellence Committee of IAPG was held at the Llao-Llao Hotel in the City of San Carlos de Bariloche, Province of Rio Negro. At the closing ceremony, that took place on 31st March, a general assessment of the Congress was made by the President of the Organizing Committee, Daniel Ragazzini, and by the Technical Committee President, Horacio Grillo.

## Prospecting

- p.20 **In Pursuit of Excellence . . .**  
In the course of the II Latin American Congress for Quality in the Oil and Gas Industry that was held in Bariloche last March, the closing lecture was about 'The Pursuit of Excellence' in which the evolution and tendencies of quality systems, the importance of quality management and the pursuit of excellence within the future framework of the Oil and Gas industry as well as education about historical prospecting subjects, that is to say, the importance of learning from History in order to plan Argentina's future in this industry.  
*By Armando Espinosa Segovia (INLAC), Marcelo Guiscardo (Pride International and San Antonio) and Carlos Alberto Mallmann (UBA)*

## Technologies

- p.34 **Six Sigma: A strategic tool for quality**  
Six Sigma has become an important quality-oriented tool for continuous improvement which is being employed in many world organizations. This methodology focuses on the economic results achieved by operating excellence. In the course of the II Latin American Quality Congress that took place in Bariloche from 28th to 31st March, 2004, a round table about 'Six Sigma: a strategic tool for quality' was held in which this subject was discussed in depth. Copy of a synthesis and adaptation of the discussions.  
*By Ignacio Babé Romero (Juran Institute of Spain), Alfredo Rosas Arceo (Oil and Gas Mexican Oil and Gas Institute - Instituto Mexicano del Petróleo y Gas), Elizabeth Keim (American Society for Quality), Daniel Bondonno (Black Belt, Argentina and General Electric Infrastructure, Chile - Water & Process Technology) and Andrea Schneider (Cameron Cooper Inc.)*

## Cost Accounting

- p.46 **Quality-Based Cost Management**  
The management of a company has three main reasons for identifying and calculating the costs of Non-Quality: to quantify the size of the Non-Quality problem in order to justify an effort towards improvement; to lead the making of such an effort and to follow up the progress of improvement activities.  
The ability to show the negative financial impact generated by Non-Quality is the most important step to be taken to obtain the necessary support for solving problems involving several sectors of a company. Then, the solution of the problems is based on cooperation amongst the different

sectors and on an accurate understanding of the Non-Quality sources and their cost.  
*By Ricardo Werber*

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## Services

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### Quality Service

Service quality is a subject which was studied in depth during one of the round tables held at the II Latin American Congress on Quality that took place in Bariloche at the end of last March. Synthesis and Adaptation of the studies submitted.

*By Guillermo Mackey (Tenaris Siderca), Guillermo Lanzillotti (Gas Natural Ban), Horacio Leanza (Bolland y Cia.) and Enrique Hofman (St. Andrew's University – Universidad de San Andrés - and QOMG Group.)*

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### API Quality Programs

The American Petroleum Institute (API) is a prestigious institution founded in 1919 which has a wide-ranging Certification Program with the goal of 'counting on a safer worldwide industry, with reliable equipment and personnel trained to issue certifications'. API Quality Programs are being developed.

*By John Modine (API)*

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## Research and Study

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### II Latin American Congress on Quality. Technical works

During the II Latin American Congress on Quality, that took place in Bariloche, 107 technical works on the established set of subjects were submitted. The abstracts of 10 of them, suggested by the IAPG Quality and Excellence Management Committee are published.

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### Ergonomics applied to a refinery: a unique experience

If Ergonomics were applied to a workplace, not only the company would reduce its money losses but also the income would be increased and the productivity levels of its workers as well as their creating and innovating abilities would be improved, as their degree of motivation would be much higher.

The paper 'Applied Ergonomics for an Oil Refinery' submitted last year during the XIV Meetings on Latin American Safety and Health at Work that took place in Bogotá, Colombia, have allowed for the identification of vulnerable spots in occupational health. This study was carried out by the Center for Ergonomic Studies and the Argentine Safety Institute (IAS) in an Argentine refinery, which has been acknowledged by the United Nations there being no record of previous similar works for this type of industry.

*By Luis Campanucci and Daniel Luis Sedán (Argentine Safety Institute - Instituto Argentino de Seguridad)*

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## University - Industry

### The CEDIAC and Quality. Working on high-technology projects from University

There is a pre-concept that maintains that university student work patterns differ from the ones requested by companies for the execution of their projects. In spite of this, there are a good number of instances in which, university and company goals, taken as complementary of each other, have allowed for important technological developments satisfying, at the same time, the needs of both parties. The CEDIAC, (An Institute that works as a dependency of the School of Engineering of Cuyo National University - *Universidad Nacional de Cuyo*) is a clear example of how there can be participation in high-technology projects from University. An example of this is the one in which the University is participating with INVAP Company about Security Probability Analysis (SPA – APS).

*By Jorge Barón, Universidad Nacional de Cuyo*

## Safety

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### IRAM Standard 3501

IRAM Standard 3501 about Certification of In-built Fire Prevention Facilities is composed of two parts: the first one, states the certification procedures and the second the requirements to be met by the Certifying body and the Auditors in order to apply this standard.

Mr. Daniel Kerner, Eng., IRAM 3501 Coordinator stated the main concepts of this standard, in a presentation made before the IAPG Safety Committee. His thoughts are published by recommendation of this Committee.

## Culture

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### A window into culture:

#### Funes of the good memory

The book 'Fictions', by Jorge Luis Borges, includes a series of stories belonging to 'the classic category of anthology pieces'. Translated into several languages, it was awarded the International Prize in 1961 by publishers from France, the United States, United Kingdom, Italy, Germany and Spain. One of the stories told and reproduced in this issue of 'Petrotecnia' is 'Funes, the Memorious' which, according to its own author, 'consists of a long metaphor of insomnia'.

*By Jorge Luis Borges*

## News

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### Business News

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### IAPG News

News from Houston