



GeoWorld

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What's New From Geoservices?

A Period of Unprecedented Innovation

As we enter the 4th quarter of the year, it is becoming obvious that 2003 will break records for Geoservices in terms of the quantity and diversity of new services that we are introducing to the market.

What we are really beginning to see is the fruit of the strategy that was put in place two years ago to focus our development efforts on the areas of our core competencies.

Whether it concern evaluation, diagnosis or optimisation of diverse field processes, it is clear that Geoservices personnel, backed up by innovative technology, will be playing increasingly decisive roles for many operating companies in the future.

Today, we have a particularly strong opportunity to increase the value of our services by the intelligent use of original technology. We are just seeing the commercial debut of our FLAIR and Field Surveillance services and we will now be eager to realise, with everyone's help, their full commercial and technical potential.

Over recent months, we have had a lot of movement within our District & Operations team, with many District Managers moving to new geographic areas. We wish them, and all of you who are facing new challenges in Geoservices, the best of luck and success in your new positions. Your efforts are paramount in strengthening our position of leadership through technological innovation and worldwide presence.

Bruno Burban

Benoît Debray



A new FLAIR Unit being loaded at the start of its journey to a job in the Gulf of Mexico

It looks like 2003 is going to be the year when Geoservices launched more new services than at any time in its history. That favourite of clients' questions "*so what have you got for us that's new?*" holds no fear at the moment because so much has been appearing that it is hard to know where to start.

So let's start with **FLAIR** (Fluid Logging & Analysis In Real time) which made a big step forward this month with a high profile deepwater project in the Gulf of Mexico. **INFAC** (INterpretive FACies Technology), the interpretation service linked to the Reserval™, has also got off to a very strong start. Both these products will be key features at our booth in the SPE Conference in Denver during October.

Our new advanced slickline products, the **GEM-Valve**, which uses Geoservices Electro-Magnetic technology to control a sub-surface safety valve, and the multi-shot Build-up Evaluation Shut-in Tool, **BEST**, have cleared the first hurdles towards becoming suc-

cessful tools in our Well Intervention service line.

Our **Field Surveillance** service line, which offers a unique approach to production monitoring and optimization, shows much promise for the future with new services; the multi-purpose Mobile Unit called **GEOPTIMAX**, and the permanent monitoring service known as **GEOSCOPE**.

On top of this, earlier this month we launched the new **gWEB** service, which offers the industry's most effective real-time information and communications platform. At the various industry shows and exhibitions we attend, time is often too short to cover all that is new. Similarly, there is not enough space here to cover in any detail all of the new or recent technology and services that are now hitting the market.

The list is not complete without including **geoNEXT**, our new vanguard mud logging service, **Pre Vue** pore pressure estimation, a new **Well Site Geologist** team, and a new multi-phase flow-metering service that has yet to be given a name. It is clear that our technical, marketing, training and operations teams will have their work cut out over the coming year as we deploy more and more of these new and often very original services.

A cross-section of the GEM-Valve, a new sub-surface safety valve that uses Geoservices Electro-Magnetic technology.



TRAINING

Managers Go Back To School at the Wellsite



Getting to grips with some slickline equipment at the managers' slickline training in Crisenoy in May, from left to right: Eric Vidal, Country Manager Libya; Mark Badcock, former District Manager Middle East; Yann Douarin, Caspian Area Manager and Kishore Naik, Country Manager Qatar.

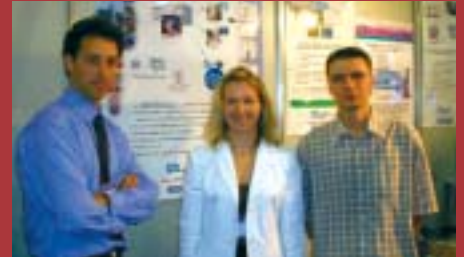
On the 25th May, a group of Geoservices managers met at Crisenoy, France with a common goal; to learn about slickline operations from the vast experience of their instructor, Pierre Hubner. The group's background was a typical Geoservices mix with varied origins from Australia, France, India, UK, Middle East and work experience ranging from a few months to decades.

Steve Davidge, a member of the group, takes up the story: "The site was Spartan with three wells having long ceased production, but in the glorious sunshine of the fields of Brie cheese country, we

were in high spirits and ready for all that Pierre could cram in to our heavy schedule. Safety and Quality, as befits Geoservices' code of practice, were drummed into us from day one. However the mundane, class-aspects of any training session were dispelled immediately when we were let loose on a new winch and slickline tool string. First principles were employed to set up the well control equipment lubricator assembly and stuffing box. Prior to this we had the painful experience of fitting the wire rope to the running tool, an art in itself.

Two teams were quickly formed with the aim to run, set and retrieve downhole safety valves. The depth of some 1250 m may be shallow by today's standards, but it was deep enough for all participants to experience the hands-on winch controls, and the joy of feeling the wire, manual jarring and the success of a tool being set. Jarring is an art up or down, and both teams struggled, not without some misapprehension to complete the tasks set by Pierre. I guess we could call the result a draw, but I know we all came away with some satisfaction, and a new appreciation of how demanding a Well Intervention service can be."

Business Development in Russia



Geoservices continues to explore ways of growing our business in Russia and with this objective in mind has recently had commercial booths at two important oil shows, the MIOGE in Moscow during June and the Tyumen Oil show in Western Siberia this September. This photo shows, from left to right, Thomas Rebilly, Larissa Sinkova and Alexander Aniskin at the MIOGE exhibition in June.

We were very pleased at the interest shown in our services at both these shows. We used the Tyumen show as an opportunity to present our products and services to the important players in the Siberian oilfield industry. For this, we organised a Geoservices Technology Day where our Russian-based team was assisted by head-quarter's personnel to present our latest technology in the Well Intervention, Field Surveillance and Mud Logging domains.

A New Field Surveillance Training Course



Theo van der Veen (standing) enjoying some good-humoured interactivity during the FM2 part of the Field Surveillance course with, from the left: Xavier Merle, Constantin Budzuga, Nelson Quintero, Gilbert Couic, Patrick Loreal and Nathalien Narvaez

Geoservices' first in-house Field Surveillance training is underway. Participants from France, Romania and Venezuela are currently taking the Field Master 2 (FM2) part of

the course given by one of our resident Dutchmen, Theo van der Veen. Benoît Gouzi, who is overseeing this training, says "we started the course on the 15th July this year and it is planned to go on until the 27th October. In addition to FM2, which replaces our ALS Production service, we will be covering well completion, gas lift, production hardware, and the trainees will be doing quite a bit of practical applications in the field". Geoservices is placing more and more emphasis on training its personnel and our new Field Surveillance services are already benefiting from this.

S P O T L I G H T

Reserval's Unique Gas In/OUT Analysis Capability Proving its Value on Hibernia

Geoservices has been providing Mud Logging and related services to Hibernia Management and Development Company Ltd. (HMDC) on the Hibernia production platform, located 315 km off the east coast of Canada, since 1997. In 2001, HMDC encountered an Asphaltene layer within the Hibernia reservoir and, in an attempt to provide more value-added services to HMDC, senior TDC Engineer Darien Rowsell* suggested that due to the quality of the Reserval™ gas analysis, closer analysis of the data would be useful in identifying gas/oil and oil/water contacts within the reservoir. The reason being that it could complement MWD and wireline services and prove invaluable in long reach wells where conventional logging services might prove unattainable. After presenting the results of a six-month study on detailed ratio analysis of data collected from the Hibernia field, HMDC decided to proceed with the new service. For some time it was known that certain mud additives could occasionally cause

elevated hydrocarbon values and this proved problematic when using the raw data for Gas Ratio Analysis. After some investigation, it was determined that a common additive to the mud, an emulsifier known as EMULD, was the cause. By subtracting Gas In values (obtained from a second gas trap being placed in the suction pit) from Gas Out values, the erroneous values can be corrected to provide better quality data. This considerably enhances the value of the service for gas ratio analysis and provides more certainty when picking fluid contacts within the reservoir. The Geoservices Reserval™ is capable of sampling Gas In and Gas Out, but in order to better correlate one with the other, some adjusting was necessary. Thanks to good work by Data Engineer Chris Mews and the computer skills of well site geologist Don Rypien this was done to perfection. Trials on previous



The Geoservices crew in the unit on the Hibernia platform. Seated L-R: Gerry Sheppard (Senior TDC), Shane Crawley (Senior Mud Logger). Standing L-R: Bill Smith (Senior TDC), James Jackson (Mud Logger) and Chris Mews (TDC).

well data using the corrected gas values have correlated well with formation tops picked with wireline tools, and the Gas Ratio Analysis is now an integral data set being utilized by HMDC. The service is presently being run on the longest Hibernia well to date, with a projected measured depth of 9494 m.

** Darien Rowsell's keen interest in gas analysis was quickly noticed and he is now working as a FLAIR Engineer in the Gulf of Mexico.*

- A New Internet-based Information Platform

At the Offshore Europe oil show in Aberdeen earlier this month, Geoservices was delighted to display as one of its star attractions the new secure, Internet-based, real-time, information system called gWEB. Although we have been supplying real-time information services for close to 20 years, gWEB is the first time that we have used Internet technology to offer a solution that includes the type of flexibility today's clients are looking for. gWEB is both a document management system and a real-time data transmission system. Streamlined for efficiency and performance, information is now no more than 3 mouse clicks away. Great care was taken when designing gWEB to allow any user who is familiar with using the



Internet to quickly navigate its features. It has many customizable functions that allow flexibility from project to project, and individual visualization formats. gWEB is unique in its ability to integrate real-time data and documents from multiple vendors into a single secure Web interface. With an ability to manage multi-

well / multi-rig operations through a single real-time system, it offers our clients all the operational benefits that technology standardization can bring. For the gWEB project, Geoservices has teamed up with Visean Online who are the specialist in the IT component of the service. The partnership is ideal since it enables Geoservices to focus on its core competencies in terms of well site information while Visean ensures that the flow of information and information security meets with the client's requirements. We currently have a number of new contracts in hand and interest by our clients is extremely keen.

Below is Geoservices' current advertisement in Upstream newspaper



People, Knowledge & Technology

Bringing innovation worldwide to
Well Intervention, Mud Logging,
Field Surveillance and Well Testing services

mail@geoservices.com www.geoservices.com



With **Geoservices Web** we now offer the most effective real-time information and communications platform for all wellsite information

NEWS FROM THE DISTRICTS



Australasia



Geoservices Data Engineers onsite at the Habanero 1 well in the Cooper Basin, Australia; from left to right: Leigh Foreman, Gavin Fernandes and Gedeon Doczy. Absent from the photo is Stan Willson, the fourth engineer.

Geoservices in HDR project

In South Australia's remote Cooper Basin, a known source of natural gas for more than 30 years, the hottest and deepest well drilled in Australia has been sunk to a depth of 4.5 kilometres, where temperatures can reach 270 °C. The driving force behind the project is a company called Geodynamics who hopes to turn energy from the earth's depths into commercial energy. Hot Dry Rock (HDR) geothermal energy is environmentally clean and does not produce greenhouse gases. The concept behind HDR geothermal energy is relatively simple. Heat is generated by special high heat producing granites located 3.8 km or more below the Earth's surface. Hot Dry Rock

energy is created by drilling deep into the granite and using it to superheat water, which produces gas to turn electricity-producing turbines. The heat is extracted from the rocks by circulating water through them in an engineered, artificial reservoir or underground heat exchanger.

"This is the hottest spot on earth outside volcanoes", says Dr Bertus De Graaf, managing director of Geodynamics.

Geoservices has been playing an integral role out on the first Hot Dry Rock well – Habanero 1 (aptly named after the world's hottest chilli). The Data Engineers have been supplying the client with a full suite of services, including real-time data transmission, and playing a vital role in kick detection from high-pressure and high-temperature water from the granite reservoir. Their intervention has been paramount in preventing the water flashing when nearing surface. Geodynamics, a new company in the drilling industry, has been very impressed with the level of experience and professionalism among the Geoservices Engineers. The client particularly appreciates their enthusiasm and the way they work closely with its own Senior Drilling Engineers.



Indonesia

Independence Day celebrations

In the days leading up to Indonesia Independence Day celebrations on August 17th, all employees took part in many



Geoprolog Jakarta base personnel at the top of a hill called "El Monte" after a cross-country competition that was part of the Independence Day ceremony.

sporting competitions, such as table tennis, swimming, traditional dancing, singing and 10 km cross-country races. All of the Geoprolog Jakarta base personnel showed their enthusiasm and team spirit in striving to achieve their best at these events.



Dancers in traditional costume dancing the Sundaneese 'Mask Dance'. See if you can spot which one is Ibu Diah, our District Manager for Indonesia!



Middle East

ALS-EVE plays key role in assisting RasGas to set World Record for Long Core Recovery

RasGas Company Limited, a national LNG company in Qatar (major partners being Qatar Petroleum and ExxonMobil), have just established a new world record for long barrel coring on their NFR-3A appraisal well in the North Field, offshore Qatar. In August 2003, 620 ft of



Ilan Bridle making an inventory of core pieces after the world record breaking core run offshore Qatar

conventional core was attempted and recovered in a single coring run with 100% recovery for Core #2. This record was made even more remarkable after Core #3 also cut and recovered another 620 ft of continuous core, making it a back-to-back world record for continuous coring. The previous world record, set in 2000, was 600 ft attempted and 581 ft recovered.



In the North Field, offshore Qatar, from left to right, Ian Bridle (Wellsite Geologist), V. Mohan (TDC Engineer), Stephen Kennedy (RasGas Operations Geologist), P.P.Rajan (Mud Logger), Milan Stevanovic (Wellsite Geologist).

Geoservices, being the mud logging company on location, played a large part in monitoring coring parameters during this record breaking run and helped to ensure success. ALS EVE, our drill string vibration evaluation service, made a significant contribution to achieving 100% core recovery. Additionally, the Geoservices mud logging crew and wellsite geologists were active at the rig site processing and marking the core barrels before shipment to the core lab for analysis. Working conditions were extremely hostile with daytime temperatures soaring to 45 °C with almost 100% humidity. The crew worked continuously for 18 hours to get the job done - an outstanding effort from all involved.

been in Libya since 1992, initially operating a PVT lab for Agip offshore and then, in 1997, taking over our own lab. This operation is a one-man-show, with Eric organising his rotations around the work level - a little lonely out there, Eric?

Other news is that Giorgio Cancel's long-awaited replacement has arrived! Eric Vidal is, as of the 1st September, the new Country Manager in Libya. Giorgio moves on to take on the challenge of Country Manager in his home country of Italy. Thanks Giorgio, for a great job well done. We wish both Giorgio and Eric success in their new postings.



North Africa

Eric Gerber - still providing PVT services

PVT analysis is becoming a popular option as part of our Field Surveillance services. For those who don't know, or have forgotten, Libya has had a fully functional PVT lab in Bu-Attifel since 1993. Our service started initially with a PVT 101 but this has benefited from lots of additions and modifications over the years and it now caters to most of the clients in country. Eric Gerber, the man in charge of running this lab, has



Eric Gerber and his PVT 101 in Bu-Attifel - still going strong after ten years of service



North Sea

Introducing New Technology at Offshore Europe

Despite a general decline in the UK market, we were pleased to be able to present some new technology at this year's Offshore Europe oil show, held in Aberdeen from the 2nd to the 5th September. More than 26,000 participants visited the show and Geoservices enjoyed a lot of interest during the four days with the launching of the FLAIR/INFACT services and the 'gWEB' solution to real-time monitoring.

The District has seen the SF 140 rig leave to be stacked and also the departure of the drillship Belford Dolphin for ONGC,

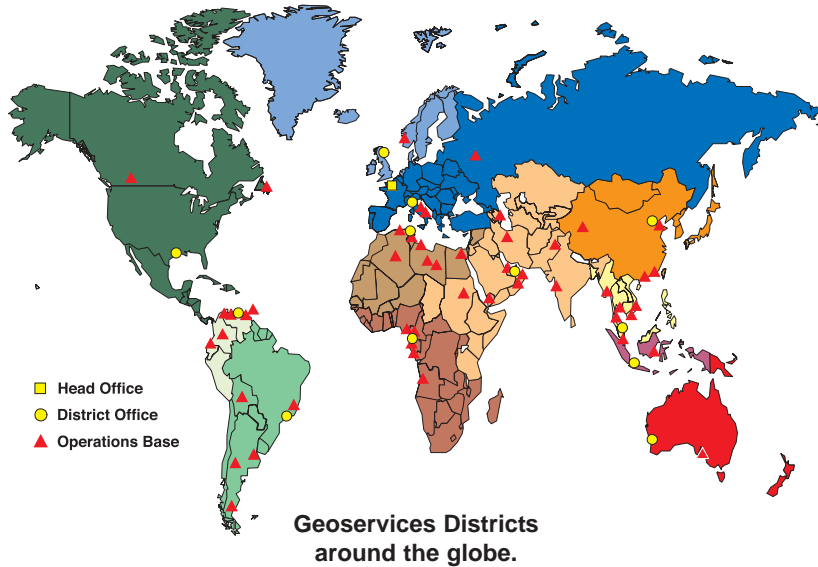


Geoservices' hospitality suite at this year's Offshore Europe Oil & Gas Exhibition in Aberdeen, Scotland, in September.

India. The DT 46, however, returns to drill an important exploration well for Shell onshore at Rotterdam, while both the Ensco 80 and John Shaw pick up second wells for ExxonMobil and CNR respectively. The Scarabeo 5 rig is now drilling with the geoNEXT on the HP-HT Kristin field development. geoNEXT is also planned for a second rig, the W. Alpha, for the autumn. Meanwhile operations in Denmark remain high with the arrival of a third Ensco rig, which will undertake a one-year drilling contract for our major client, DONG.

NEW DEVELOPMENTS

Changes at the Top in the Districts



There have been a lot of changes in District management recently, ever since a manager rotation plan was put in motion. It started with Paul Geiss taking over from Jean-René Croguenec as District Manager for Continental Europe in April. Towards the end of May, Christian Genty relinquished his marketing position at head office to take over the South-east Asia District, promptly moving the district office from Bangkok to Kuala Lumpur. The man

Christian replaced, Yves Martin, went to Beijing to relieve Patrice Schaal of the North-east Asia District, while Patrice in turn moved to Caracas to take over the North Latin America District from David Cook. David set off for the Middle East in the middle of August and has just this month completed the handover period for that large district with Mark Badcock.

The moves are designed to strengthen

Geoservices' District Management at the top. Each manager will bring with him the experiences of his previous District as regards markets, clients, administration, etc., and further enrich his knowledge by learning to adapt to the different conditions in the new District. Apart from the obvious broadening of managerial skills, it is also expected that this will accelerate the introduction of all Geoservices' services to all Districts.

FSD - the new Field Support Department

A new era of field support begins in Geoservices with the creation of FSD. The new team, which will be lead by Maurice Leonard, regroups both the Mud Logging and Production OAD's. As well as creating a single support team the objectives of FSD as expressed by Maurice are *"To enhance assistance efficiency, to organize and manage a worldwide network of technical centres and supply a solid 24/7 support for new and non standard services"*. FSD is now part of the Technical Department.

One of the first actions for FSD will include informing you of the single contact number for 24/7 support for new products and field tests, and the single e-mail address to regroup pertinent ideas, information and requests from the field. A major project also concerns putting in place Technical Support Centres, which will be located in the major time zones. Whereas the new responsibilities of FSD will include assistance with the introduction of new services, other former OAD roles, such as equipment optimisation, will pass essentially to the Supply Chain Management Department.

With many new services being deployed in the field, the FSD comes at a time when we expect demand for its services to be at a peak. All going as planned, you will soon begin to feel the impact of FSD in terms of support and assistance.

After Hours Antics

Anyone with a computer in head office must know Erwan Rozé, because he fixes them when they have problems! When not repairing computers, Erwan spends a large part of his weekends on top of a high cliff overlooking the sea. This is where the wind blows strongest and that is what he needs to get his model glider into the air. Once airborne, he can make the glider gain altitude and stay aloft by operating the remote controls to



Erwan Rozé (on the right) with friends piloting a model glider from a cliff in the Sable d'Or, Brittany, France.

take advantage of the thermal currents. The glider can even be made to do aerobatics, just like a motorized plane.

T R A I N I N G

CAS Committee Meets in Abu Dhabi



Attendees at the CAS Committee meeting in Abu Dhabi in June. From left to right: Bosco Pereira, Tim Bartley, Jean-Claude Dereuder, Luca Paravelli, Benjamin Pradeep, Michel Maume, Mike Burrell, Bob Smith, Didier Mareschal, Gavin Fernandes, Simon Batchelor, Hubert Janszen, Clyde D'Mello and Suresh Gadkari (with Gill Haines behind the camera)

The second world-wide CAS (Competence Assurance System) Committee meeting took place during early June in Abu Dhabi. The five days

saw a detailed and thorough review of the mud logging CAS. Approximately 100 tests of knowledge and several hundred skills were revised and extended to include user feedback, new equipment and new software.

Worldwide CAS activity, since the last meeting in October 2001, was reviewed and future plans were put in place. Hubert Janszen reported on the development of the CAS for other product lines and the comprehensive training programme being established for prospective geoNEXT and FLAIR Engineers. The opportunity was taken to visit the Abu Dhabi Training Centre and for the instructors from around the world to share training ideas, presentations and forthcoming multimedia material.

Base/Country Managers' Training Course

A group of 13 managers, representing 12 different countries, completed the Base/Country Managers' Training Course in June. The course is designed to provide exposure to all the facets of a Base/Country Manager's role such as quality, safety, personnel management, sales, contractual risk, financial management, etc., focusing on the factors affecting financial results. In line with the continual expansion of technical training, Geoservices is committed to providing opportunities for our managers to continually develop their skills, and is working to enhance and increase the amount of focused managerial training that is available for them.



Taking part in the Base/Country Managers' training course in Le Blanc-Mesnil (LBM) in June, from left to right, back row: Graeme Rignault (Houston); Eric Vidal (Libya); Tony Davies (Adelaide); Jérôme Paire (LBM) and Bruce Rumsey (Indonesia). Middle row: Clay Crain (Bolivia); Raphael Theratill (Yemen); Raja Chelliah (India); Nik Spanovic (Aberdeen); Jean-Marc Tissot (Algeria). Front row: Alec Robinson, Instructor (LBM); Gustavo Rodriguez (Venezuela); Andrew Mynors (Indonesia) and Mario Ayala (Ecuador).

EMROD Training in India

Between the 17th and the 22nd June this year, there was a training course on the Electro-Magnetic Read-Out Device (EMROD™) in India to support our contract there with Cairn Energy and also our operations in Vietnam. The training took place at Cairn's Pipavan Base.



Members of the EMROD training course in Pipavan, India, from left to right - standing: Johnson Thomas, Ramanujan Jeughale, Francis Baretto, Previn Nilkari and Theo van der Veen (instructor). In front Donmark Gomes (Geoservices Representative Pipavan Base) and Jason Serrao.

H S E Q

Two Geoservices Bases certified by BVQI in Venezuela



Participating in the BVQI Audit of Ciudad Ojeda Base, from left to right: César Angulo, Nelson Villalobos, José Reyes, Jorge Díaz and José Medina (all part of the Well Intervention Team), Naurodys López, Purchasing, Jesús Mendoza, Well Intervention, Maibelys Velásquez, HSEQ Coordinator, Arlette Gonzalez, BVQI Auditor and Elizabeth Maneiro, BVQI Lead Auditor.

to further improve our system. This achievement was only possible due to the continuous effort and dedication from our local HSEQ personnel Maybelis Velasquez and Adelaida Ascanio, and to the commitment from local and District management.

The Maturín and Ciudad Ojeda bases were previously audited and certified separately in February 2001 and May 2002 respectively,

Last July, BVQI carried out a Quality audit on our bases in Ciudad Ojeda and Maturín, Venezuela. The auditors were unable to find any non-conformities in three days of auditing and certified our Quality System to the new standard of ISO 9001:2000. They made several observations which led to an action plan being discussed locally

under the old standard of ISO 9002:94. The aim this time was to standardize things into one unique quality system, applicable to all operations in Venezuela. This will result in better management of resources and distribution of information between the bases. The auditors mentioned that the success of this system lies

in its simple methodology and the use of data and information from operations that can be analysed, shared and used to improve general performance.

Safety Observation Card (SOC) gets good response



The monthly North Sea District SOC award in July saw Atul Singh Bhaduria (Data Engineer) receive a 'mystery' bottle from Steve Davidge (District Manager). We wonder if the bottle warrants a SOC submission itself!

The momentum of the Safety Observation Card (SOC) initiative (see *GeoWorld* n° 28 - March 2003) can be clearly seen over the last quarter as more of our own personnel and even our clients are recording their own safety observations. A broad spectrum of information is flowing into our Bases, including information on corrective actions, as well as recognition of initiative - exactly the reason behind SOC. Since its implementation in the North Sea District, there has been a great response and each month a small gift is awarded to the person who sends in the most interesting card (see photo above).

Stars Galore for North Sea and Middle East Districts

Another District has gained official recognition of its efforts to improve safety standards. The Middle East District accompanied the North Sea District to this year's British Safety Council Awards ceremony in London on the 4th September. In its first submission for the award, our Middle East District achieved a very creditable benchmark 3-Star certificate while the North Sea District retained its 5-Star rating. The toastmaster at the ceremony picked out Geoservices for



At this year's British Safety Council Awards ceremony in London; from left to right: Morag Noble, Accountant North Sea; Malcolm Sim, HSEQ Co-ordinator North Sea; David Ballard, Director General of the British Safety Council; Rob Taylor, Corporate HSE Manager; Shajahan Valiyaveetil, Operations Manager Middle East and Alastair Gray, Base Manager Abu Dhabi.

special mention and complimented us on our dedicated support of excellence in safety.

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