

ASSOCIATION OF GEOTECHNICAL  
TESTING AUTHORITIES (QLD) INC

# NEWSLETTER



Association of Geotechnical Testing Authorities (Queensland)  
**Newsletter - August 2002**



August 2002 (No.2 of 02)  
Issue No. 16

**Inside this issue:**

Meeting Report	1
Chairman's Report, Editorial & Regional News	2
Vale Geoff Maiden	3
Annex Laboratories	4
News - The rest of Queensland	5
Vale Martin Ferguson, Contest	6
Don't Work Hard	7
Capturing Quality Data	8
Australian News	9
Current Members	10
Coming Events	11
Professional Indemnity Insurance	12
Hall of Fame - Alec Skempton	13

**Officebearers**

Chairman:	Paul Thompson	Ph: 07 3208 6966 Fax: 07 3209 1047 Mob: 0413 153 200
Deputy Chairman:	Peter Davis	Ph: 07 3870 0291 Fax: 07 3870 5980 Mob: 0409475224
Secretary:	Greg Greenhalgh	Ph: 07 3353 4266 Fax: 07 3353 4409 Mob: 0417648065
Treasurer:	Jim Perry	Ph: 07 5449 8945 Fax: 07 5449 8945 Mob: 0417498945
Deputy Secretary/News Coordinator:	James Dick	Ph: 07 5524 6199 Fax: 07 5524 6533 Mob: 0418246533
Non-Executive Officers:	John Kippen	Ph: 07 3274 4411 Fax: 07 3274 4977
	Ron Richards	Ph: 07 5495 1633 Fax: 07 5495 1733
	Gary Mulholland	Ph: 07 3207 8537 Fax: 07 3820 6854



**L & B Booth  
Publishers**  
85 Sydney St  
Bayview Heights  
4868  
Phone 0740311122  
Fax 0740 519480  
Email:

The publishers of this publication take no responsibility for any claims made by or on behalf of any advertiser in their editorial or advertising content and no party should rely thereon in making any decision.

No-one is exempt!

**General Meeting on 5th August 2002 at  
Hawken Auditorium**

14 people attended the meeting on Monday night, with three speakers taking the floor to provide the latest information on Safety on Drilling Rigs (Brendan McDougall, Inter-safe); Professional Indemnity Insurance (Mike Marley, Earthtech; Electronic Weighing Machines (Brian Phillips, WeighTech) and Mark Bolton of Bordertech (sand in sub-grade - CBR testing.)

(Continued on Page 12)



## Chairman's Report

**H**ello to all members. It doesn't seem so long ago that everything seemed to be doom and gloom. Now everyone I talk to has been inundated with work. What's changed? There never seems to be a happy medium.

Thank you to all those members who replied to our member survey on various issues. Unfortunately the number of replies was insufficient for the committee to take action at present. Please take the time to reply to the survey. I would like to think that all our members were entirely happy and there are no issues the Association could help with. But I don't think that is the case. The Association is still running financially sound however as I like to keep reminding members, to maintain the sound position we need to keep memberships growing at a steady pace. Information packs and membership application forms are available and can be sent to any prospective members. Contact one of the Committee members and we will have them sent out.

Paul Thompson, Chairman.

## Editorial

Hello Again. Well it seems I wasn't old enough to retire, so the new Committee have asked me to do just one more Newsletter. They have been extremely helpful in providing articles for this issue and my thanks to James Dick and Peter Davis for their help. Peter's timely article on (NATA) and the Annex lab is most welcome. It is a subject we have all been interested in, and rather more than perturbed about.

It was sad to hear of the demise of both Martin Ferguson and Geoff Maiden. We appreciate the detailed information on their lives provided by Bob Calder, Martin's long-time friend, and James Dick (Geoff Maiden). Terry (Ferguson) had profiled Martin in a previous issue of the Newsletter, however Bob gives us more of an insight into Martin "the man".

We hear on the grapevine that Level One Certifiers will be accredited in the not-too-distant future, thus ending the question-mark over who has the qualification and/or expertise to carry out Level One Supervision, and who can sign off on it. No doubt it may effect Professional Indemnity premiums, which is yet another matter.

The Committee has enclosed a questionnaire on PI Insurance. To enable them to approach insurance companies with a view to a "bulk buying" approach, it would be appreciated if you would complete and **FAX TO SECRETARY, GREG GREENHALGH, ON 07 3353 4409**. It is great to see the Association addressing the Insurance Indemnity issue. Latest figures confirm that one in four Qld businesses are now paying at least 50% more for public indemnity coverage. However, the word from the Federal and State insurance summit in Canberra is that there are no easy or quick solutions to these issues. Though if we approach the insurance companies with a request for cover by at least 60 members, perhaps the burden can be eased somewhat. Those who have not renewed for the next year, be warned, you could be in for a nasty surprise. Also, if you not registered with the BSA for site classification and waste water management, and you are carrying out either of these activities, your P.I. insurance will not cover you in the event of a claim.

Our "News" section this issue (page 9) highlights the fact that Qld and NSW State Governments continue to withhold construction work from the private arena, whilst the rest of the States have adopted a competitive tendering system. This is a matter that should be addressed by the Association and "nipped in the bud" before it grows out of control, especially as the roadworks budgets seem to be shrinking at an alarming rate. Queensland construction businesses cannot exist on bread alone and it is ridiculous to suggest that we should embrace the "global competition" market as geotechnical testing services are not logistically "mobile" enough. Cheers for now, Bea

## Regional News – North Queensland

North Queensland is still moving along very well. Homebuilding is still happening and subdivisional works are also well under way. Cityport site is under construction with lots of work still to be done. The Cooktown roadworks MRD project was won by RoadTek with the crushing won by Whitsunday Crushing. No news yet on who won the testing for the crushed product, or who won the testing for Road Tek. Could that be Road Tek? Haven't heard who is doing the audit testing on them. The weather has been brilliant with excellent work conditions. The contract for the six laning of the southern highway is at the decision-making stage at the moment. All in all, it has been a great year so far and we look forward to the rest of the year, with lots of work in the pipeline.

## VALE:

### Geoffrey Douglas Maiden (1934 – 2001)

**S**adly the Geotechnical Engineering Field lost one of the true pioneers of our Industry last year. Certainly in South East Queensland there was no bigger name than Geoff Maiden. Geoff's name sits comfortably along with other stalwarts such as Peter Hollingsworth, Nev Morrison, John McIntyre (NQ) and Gerry Fitzgerald. His name lives on through the business he sold in 1984, as Geoff Maiden and Partners Pty Ltd still operates on the Gold Coast.

Geoff started his working life as an apprentice Electrician and actually worked as maintenance electrician at Queensland University. A lot of Geoff's time was spent fixing things that the "soilics busted" in the soils laboratory - not always electrical either. Geoff soon developed quite an interest in what was happening in the laboratory and was soon to master many tests. Around this time commercial laboratories were just beginning to pop up as Queensland flourished from many large mining projects and residential developments throughout the state. Geoff was quick to pick up on the commercial potential and in 1973 joined with Nev Morrison to form Soil Surveys, a company which - although not in the original format - still operates today.

Geoff and Nevs ingenuity was resounding as they operated Soil Surveys from under Geoff's house until the business grew to have Offices in both Brisbane and the Gold Coast. After parting ways with Nev in 1980 Geoff retained the Gold Coast operation and named the business Geoff Maiden and Partners. Through the years Geoff operated laboratories, he provided training for scores of people who later went on to have great success in the engineering field - including his son Graham. He was also involved with most of the major developments on the Gold Coast and is remembered fondly by the Consulting Engineering fraternity on the Gold Coast for his forthright behaviour.

As the testing industry competition increased and retirement beckoned, Geoff decided to sell up and head for warmer climes. In 1984 Geoff bought the Cinema and shop at Green Island and settled into semi retirement away from the worry of low Dynamic Cone Results and failed compaction tests. This was relatively short lived as the Japanese buying invasion of Queensland soon consumed Geoff's quiet lifestyle when investors bought the whole island.

Geoff and Marge returned to the coast and family by settling at Tweed Heads and the southern end of the Coast they loved so much. In his retirement Geoff often kept his hand in with occasional electrical and engineering advice. Geoff passed away in June last year and is survived by wife Margery, son Graham, daughters Janice and Helen, son-in-law's Doug and Steve and their grandchildren. Geoff helped shape the industry we all work in today and provided training for many of the people who train us today. He will be sadly missed by all in the industry and to put it in his own words "Good on ya Geoff you're a bloody champion."

**Kieran Byrne**  
**K.B.L. EAST COAST ASSOC.**  
100 GOVERNMENT ABSTRACT ROAD

- SOIL, CONCRETE TESTS
- GEOTECHNICAL ENGINEERING
- ENGINEERING GEOLOGY
- ENVIRONMENTAL GEOLOGY
- CONSULTING AUSTRALIA-WIDE
- Phone 1800 800 04 17033708 or 0421776234

**136 HOGANS RD BILAMBIL 2486.**  
**(PH 0755907743)**  
**2 THOMAS ST NOOSAVILLE 4508.**  
**(PH 0754554470)**

## ANNEX LABORATORIES (by Peter Davis)

(Peter is Deputy Chairman of AGTA and a geotechnical engineer and director of Ullman & Nolan, Mackay based consulting engineers. He lives in Brisbane and has been running the geotechnical division since 1976.)

There appears to be some confusion in the CMT industry over the establishment and operation of any laboratory equipment in the field. This definitely constitutes an annex laboratory, no matter how long or how short the activity will be. For instance, cement content testing by heat of neutralisation (if it requires the use of a balance on site) is classed as an annex laboratory.

At the present time, all annex laboratories require prior approval of NATA, whether or not test reports will issue from site. A NATA signatory is required to be on site.

NATA's current policy is to assess all annex laboratories, for which a fee is charged (in addition to the initial fee for recognition or approval of the laboratory).

It would be a wise move to consult a NATA staff officer before a commitment is made to undertake any testing in the field that involves the use of laboratory testing equipment (eg balance, oven, compaction mould and hammer). That staff officer will hopefully tell you what your

mountain of application paperwork shall comprise.

The piece of testing equipment most commonly misunderstood when a laboratory is established in the field is the balance. Most of us operate digital electronic balances. Apart from the three yearly full calibration, these balances require monthly scale value checks and six monthly repeatability checks. These checks are normally done in house by laboratory staff.

Relocation of a balance to a field laboratory requires either that the balance receives a full calibration on site, or a relocation check undertaken. This relocation check has to be done immediately before the balance is moved from its previous location, and again before it is used on site.

All these checks are referenced to the last full calibration. The checks require the use of the same check masses each time, otherwise there can be no traceability back to the last full calibration. This requirement is commonly overlooked.

It is a sound policy therefore to have the balance calibrating authority give you a mass value for your check mass at the time the balance receives a new full calibration. You should also note that if the same check mass is to be used with two different balances, it will need to be allocated two mass values, one for each balance. These mass values

may be different, but each will be correct for the particular balance to which it refers.

And one last comment. Just because you do the monthly or six monthly or relocation checks, it does not mean that the balance meets requirements. Do the sums to check this is so before putting the balance back into service, or you may end up with a very irate client after you have had to withdraw a whole lot of test reports.

Peter Davis

### FINAL EXAM

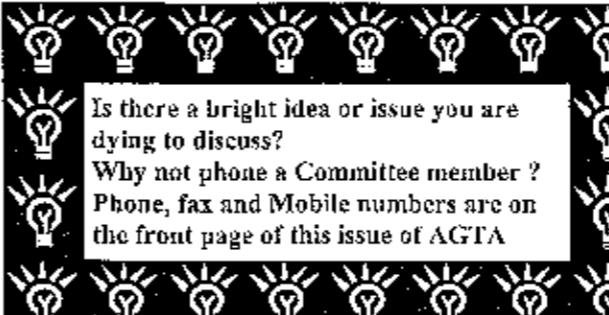
The Kiwi reported for his university final examination that consists of "yes/no" type questions.

He takes his seat in the examination hall, stares at the question paper for five minutes, and then in a fit of inspiration dives in his pocket, removes a coin and starts tossing the coin and marking the answer sheet "Yes" for Heads and "No" for Tails.

Within half an hour he is all done, whereas the rest of the class is sweating it out. During the last few minutes, he is seen desperately throwing the coin, muttering and sweating. The moderator, alarmed, approaches him and asks what is going on. "I finished the exam in half an hour, but I'm re-checking my answers."

## Regional News – Rest of Queensland

Well, everyone is so busy that we don't have any input from the other areas of the state. We do have some financial information, though, from the Federal Government's road budget for 2002-03. "\$342.5 million – we will spend \$32.5 million to convert the Bruce Highway to four lanes between Yandina and Cooroy in the Sunshine Coast Hinterland. The Budget also includes \$33.4 million (\$9.9 million in 2002-03) for the construction of the Douglas Arterial Road and Upper Ross River Bridge. We will spend \$7 million in 2002-03 on widening the Bruce Highway south of Cairns. To see full details about Queensland's budget allocation check out the Federal Budget online at [www.fcd.gov.au](http://www.fcd.gov.au).



Is there a bright idea or issue you are dying to discuss?  
Why not phone a Committee member?  
Phone, fax and Mobile numbers are on the front page of this issue of AGTA

## "BIT OF A BYTE" COMPUTER SOFTWARE COMPANY

Company was established in 1993 and Helpa was the first program released that year. Cara32 (now CARA32SQL) was released in 1997.

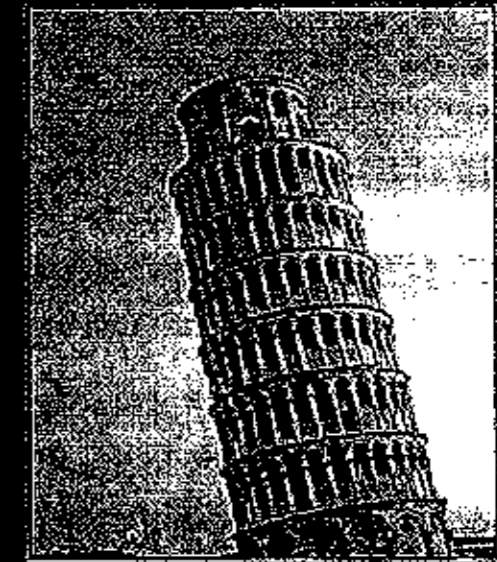
Soil Aggregate, Concrete Testing Computer Programs  
• CARA32SQL - Our first ever SQL server version for Concrete Testing. Covers AS1012 and QT testing currently. Soon to cover RTA standards also. (Includes sample entry, testing, reporting, summaries and production assessment).  
• HELPA32 - Covers AS1289, AS1141, QT, RTA and WA Main Roads, also QT, RTA and VIC Roads Ltd. Testing. Also includes some QT Asphalt Testing.  
• Summaries and Reports generated automatically via data entered. Invoicing also standard and works seamlessly, as data already in database.

Bit of a Byte's programs have been instrumental in standardising the reporting of Geotechnical Testing Laboratories and are continually upgraded with changes to Standard Testing Methods.

Steve West  
Steve West

Fax 075 478 9796 Email: [boabyte@ozemail.com.au](mailto:boabyte@ozemail.com.au)

Phone  
075 478 9797  
For personalised service



**MEDIOCRITY**  
IT TAKES A LOT LESS TIME  
AND MOST PEOPLE WON'T NOTICE THE DIFFERENCE  
UNTIL IT'S TOO LATE.

[www.derpai.com](http://www.derpai.com)

## What do you use to mark your concrete test samples ???

When NASA first started sending up astronauts, they quickly discovered that ballpoint pens would not work in zero gravity. To combat this problem, NASA scientists spent a decade and \$12 billion developing a pen that writes in zero gravity, upside down, underwater, on almost any surface including glass and at temperatures ranging from below freezing to over 300C.

The Russians used a pencil. Seriously though, what do you use? Some people use oil based markers, others coloured oil crayons, and some use builders' pencils.

Phone your tip to the Editor on 40311122, or email me at [minnie@cairns.net.au](mailto:minnie@cairns.net.au) and it will be printed in the next Newsletter.

## Vale: Martin Ferguson, CONTEST

**T**he geotechnical industry is currently mourning the loss of Martin -- one of the oldest figureheads in the business, who has made many contributions to the industry.

He spent the early years of his life in the Longreach and Aramac Districts with his parents on their sheep station "SUMANA", spending his formative years at All Souls Primary in Charters Towers followed by Scots College in Warwick. On finishing school in 1943, Martin promptly joined the RAAF for the duration of the Second World War. He followed that with a course at the highly regarded Gatton Agricultural College.

Even then it seems his underlying interest in construction work was emerging, as he decided his future lay in the expanding frontier of Papua Niugini, so off he went and set up a road construction and maintenance company of his own. He had a fleet of trucks, semi-trailers and other equipment and often told many tales of his 6 years of life as an "ex-patriate".

Yearning to return to Australia, Martin bought a sheep station at Tara in SW Queensland. His feet itched after four years and he went to London for three years, 'working in mechanical workshops and "drinking lots of beer", to use his own words.

In 1961 he obtained a position with Coffey & Hollingsworth in their Fortitude Valley lab. This was to be the catalyst for his life in an industry with which he remained involved for the next 41 years. He spent 5 years with Coffey & Hollingsworth then joined Pioneer Concrete in their lab at Coopers Plains, and in the early 1970's purchased the land and building at 12 Immama Street Albion. He had been building concrete and compaction moulds in his spare time, and a few years later he established Contest. Thousands of hours were spent studying designs, improving and improving again. Innovative, durable and high quality are a few words to describe his products. His market extended to New Zealand, Papua Niugini, Fiji and Thailand. Martin absolutely loved his work, to the point where he did not think about retiring, just "keeping on working".

Bob Calder, his friend of many years, says this about Martin "He chose to display a pretty tough exterior in all sorts of ways, but behind this there was a very different man indeed. In my 40 years of close friendship with him, I've never known him to decline to give assistance to anyone who genuinely needed it." **Martin Ferguson**

Martin leaves two sisters, Ann and Norma, and their families who, with a lot of others, will miss him tremendously and who will have many varied memories of a great character who has left a worthwhile stamp on his part of this world.



**WEIGH-TECH  
QLD PTY LTD**  
Old Agents for OHAUS  
Weighing Equipment  
Repair, Overhaul and Calibration of  
Laboratory Balances  
and Weighing Appliances  
Certification On-Site in your Laboratory  
We can also offer  
In conjunction with VMS INTERNATIONAL  
calibration of

- Testing machines
- Proving rings
- Micrometers and verniers
- Pressure gauges
- Dial gauges
- On-site mobile Laboratory

contact details: Michelle Barnier  
Brian Phillips or Lex Blades  
PO Box 4020, Forest Lake, Qld 4078  
Phone: (07) 3372 0430  
Fax: (07) 2273 0479  
NATA Accredited Laboratory  
14927

**Alan  
Bartlett  
Consulting**

**Training for Geotechnicians**

Fully funded Certificate III and IV  
traineeships available

Recognition of existing skills and  
knowledge

Diploma and Advanced Diploma  
also available

Training relevant to your workplace  
Flexible training delivery  
Nationally recognised training

**Phone: 07 3343 7851  
e-mail: bartlett@gil.com.au**

**S**imple ways to reduce your office stress.

Imagine working four hours a day, nine months a year, and earning all the money you need to do exactly what you want with your free time.

That's how the average worker should be living now, according to predictions made a century ago. Despite the introduction of many labor-saving devices in the workplace and home, however, things haven't really changed. Harvard economist Juliet Schor found, by the 1990's, that people were working one month more each year than they did 50 years ago.

It seems that whenever a new "labor-saving" product or service is developed, we use it so much that our workload actually increases. After all, wasn't work supposed to be made easier by voicemail, fax machines, cell phones, and email? On the contrary, many of us find we are constantly on call, frequently interrupted, and overwhelmed with communications. And our already-heavy workload hasn't diminished.

For an employee, the consequences of this overload can be stress, burnout, and illness. For an employer, it can result in high turnover and poor performance.

Solving the problem of overwork may help companies retain good employees. A recent study found that recognition of work-life balance issues is one of the top five drivers of employee commitment to a company.

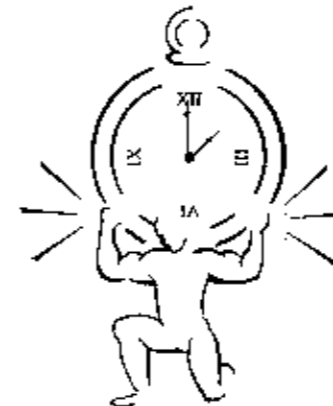
Here are some tips to alleviate stress:

- ◆ Spend time working on important tasks. Many of us are tempted to work on easy tasks first so we can enjoy a sense of accomplishment. Time spent on simple tasks can create more stress, because the really important work gets pushed back.
- ◆ Start an activity log. Every time you begin and end a new project, make note of the time. Soon, you should be able to spot those little time-wasters that derail you.
- ◆ Set daily goals. When scheduling your day, assume that something unexpected will come up. Build in a cushion of time to deal with it.
- ◆ Avoid promising when tasks will be completed. If you must commit to a date or time, be conservative.
- ◆ Always try to meet or exceed expectations, but don't fixate on perfection.
- ◆ Delegate routine tasks.

Keep other basics in mind, too. Try your best to eliminate interruptions. Select a time of day when you will return phone calls and emails. Otherwise, let your voicemail take messages.

Avoid letting other people's problems become yours. If someone throws you the ball, you don't have to catch it. In other words, when someone comes to you with a problem, try limiting your contribution instead of taking on the task yourself.

Happy working.....




**Technical Support for AGTA**  
**Acid Sulphate Soils**  
POCAS, Chromium Reducible Sulphur, etc.  
**Waste Water Disposal**  
Phosphate Sorption, Cations & Nutrient Water Balance Modelling  
**Sediment Control Testing**  
Sediment Basin Testing, Particle Sizing


Water Quality Testing

**BIO-TRACK PTY LTD**  
**Peter Edmiston**

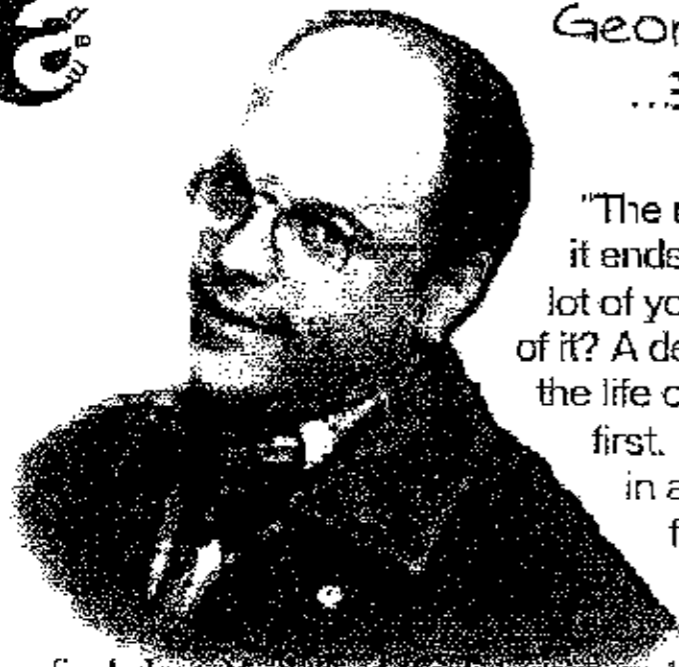
Phone (07) 3289 7179 Fax (07) 32897156  
781 Mt. Glorious Road, Highvale,  
Brisbane, 4520.  
Email: pe@biotrack.com.au



Go on, pick up the phone  
and find out .....



**Tel: (07)32897155**



George Constanza's  
...WORDS OF WISDOM...

"The most unfair thing about life is the way it ends. I mean, life is tough. It takes up a lot of your time. What do you get at the end of it? A death. What's that, a bonus?!? I think the life cycle is all backwards. You should die first, get it out of the way. Then you go live in an old age home. You get kicked out for being too healthy, go collect your pension, then, when you start work, you get a gold watch on

your first day. You work forty years until you're young enough to enjoy your retirement. You drink alcohol, you party, and you get ready for High School. You go to primary school, you become a kid, you play, you have no responsibilities, you become a little baby, you go back, you spend your last 9 months floating with luxuries like central heating, spa, room service on tap, then you finish off as an orgasm!! Amen"

### Capturing Quality Data

Electronic Data should be acquired and managed to ensure simplicity and cost efficiency. To be of use, the data must be accurate, it must be stored in a usable format, and there must be a simple method of extracting the data. Preferably all three operations should not require extensive training or expensive specialist personnel or programs.

ISO/IEC 17025 Section 4.12.2 "Technical Records" sets out NATA's requirements for the establishment of an audit trail.

This requirement should be followed when inputting electronic data to any software programs, i.e. ensure your staff member indicates his/her ownership of each and every process of the production of a Report, from Test Request to the finished product. Each notation should be signed.

#### RAILWAY & DRILLING EQUIPMENT



R.D.E.

for all your  
**GEOTECHNICAL &  
ENVIRONMENTAL  
DRILLING SUPPLIES**

Solid augers • hollow augers with interant core sampling  
large hole augers • core barrels • rotary drill rods • all  
drilling bits • thread subs • auger and drill bit  
refurbishment • concrete coring drill and barrels • SPT  
equipment • undisturbed sampling equipment  
geotechnical drilling rigs and spare parts • sample bags  
drilling fluids and muds • all environmental monitoring  
well equipment • rentals available on environmental  
pumps & meters & much more!

18 Brookes Street, Bowen Hills Qld 4006

Tel: (07) 3257 2340 Fax: (07) 3257 2348

email: raildrill@msn.com.au

### Australian News

Spending on Australia's roads is expected to accelerate by nearly 20% over the next four years to an annual expenditure of some \$9.6 billion by 2004/5, with maintenance leading the way.

BIS Shrapnel warns that while the proportion of roadwork contracted out to the private sector has increased significantly since the early 1990's, the process is now stalling with NSW, Queensland and most local authorities resisting moves to competitive tendering.

In two new studies, Road Construction Australia 2001-2016 and Road Maintenance in Australia, 2001 to 2016, BIS Shrapnel forecasts that the boost to expenditure will come initially from the Commonwealth Government's Roads-to-Recovery package, which will distribute \$1.2 billion to local councils for roadworks and from an increase in National Highways funding of \$400 million.

Further increases in Commonwealth funding are also expected over the next couple of years.

State Government activity will also lift sharply after 2002/03. A strongly growing economy will generate more revenue for work on arterial roads at this time. But more importantly, the long-awaited next round of major government projects will finally come through and provide a major boost to road construction.

Local road and subdivision spending will increase in line with a rebound in housing construction in 2003/4 and 2004/5.

The principal author, senior economist Nigel Hatcher, observes that the road sector has experienced an extraordinary boom and bust over the last five years, driven mainly by construction.

The sector grew by around 30% in real terms between 1995 and 1999, but is expected to have slumped by 15% through to the trough in 2001/2.

The Study says: "The Roads-Recovery program should give roads spending a real lift. It's a requirement that councils maintain their existing levels of road expenditure, and we believe up to 80% of the new funding could be spent on maintenance rather than construction".

Some 60% of Australia's total road length is still unsealed, and rural roads face many problems like black soil and erosion, says the study.

The report observes that the proportion of roadwork contracted out to the private sector has increased significantly, rising from around 22% at the beginning of the 1990s to some 50% now.

The shift has been most marked in maintenance, where the contractors' share has risen from 5% to almost 35%. But

The report notes an imbalance in expenditure between the sectors.

Local government roads make up about 85% of the Australian network in kilometres but attract just over 50% of road maintenance expenditure.

National highways and urban arterial roads add up to about 4% by length, but attract 22% of maintenance expenditure.

Rural local roads represent about 74% by length and while they carry only 6% of the traffic, they account for about 25% of road maintenance.

Some 60% of Australia's total road length is still unsealed, and rural roads face many problems like black soil and erosion, says the study.

The report observes that the proportion of roadwork contracted out to the private sector has increased significantly, rising from around 22% at the beginning of the 1990s to some 50% now.

The shift has been most marked in maintenance, where the contractors' share has risen from 5% to almost 35%. But the trend is now stalling.

Victoria and the NT have moved to almost complete outsourcing for maintenance, and the ACT and WA contract out large proportions of their maintenance.

However, the states with the largest roadwork budgets (NSW & QLD) along with local governments, still show little sign of dramatically changing their approach to outsourcing and competitive tendering.

Local road and subdivision spending will increase in line with a rebound in housing construction in 2003/4 and 2004/5.

### Pro-lab Test Sieves

Complying with  
Australian - British - ASTM - ISO Standards



Manufactured and Distributed by  
**PRODUCTION SUPPLIES Pty. Ltd.**

7/10 Elonera Road,  
Noble Park VIC 3174 Australia  
Ph: (03) 9795 6011  
Fax: (03) 9795 6445  
Email: prodsup@optusnet.com.au

## CURRENT MEMBERS AT 27/7/02

Amanda MacFarlane	Geo-Tech Temp Pty Ltd	Soiltech Pty Ltd
APOD Soil Testing Aus. Will V	Geotest Engineering Services Pty Ltd	Soiltest Australia Consulting Engns P/L
Bartlett, Alan	GJ Brandon & Associates Pty Ltd	South Qld Soils Pty Ltd
Battison, Ross Charles	Golder Associates Pty Ltd	Strata Test Pty Ltd
Bit of A Byte Computer Software Co	Gold Coast City Council	The Dirt Professionals
Blackburn, Terry	H & M Testing Pty Ltd	Thomas, Noel
Boral Construction Materials Country (Q)	Hallett, Mark Andrew	Thompson, Paul
Border Tech	Hicks, Shane Russell	Thurley, Christopher
Bordertech Pimpama Geotech. Eng. Ser.	Howard, Kym (Bne City Council)	Ullman & Nolan Geotechnic
Bowler Geotechnical Pty Ltd (Browns Plains)	Independent Soil Testing	Vlatko-Rudo, Stephen
Brincal, Christopher Charles	Karreman Group	Vimbury Pty Ltd T/A Earthtech Laboratories
Brisbane City Council	Kase Enterprises	Wide Bay Geotechnical Services Pty Ltd
Bruyeres, Gary Peter	Kippen, John Maxwell	Weigh-Tech Qld Pty Ltd
Byrne, Kieran	McCabe, Thomas Patrick	
Cairns Engineering Testing Services P/L	McDonald, Tony	
Civil Quality Assurance (Q) Pty Ltd	Mapstone Geotechnical Pty Ltd	
Civil Tech Pty Ltd	Morrison Geotechnic Pty Ltd	
Conran, Carl Ronald	Murphy, Peter	
CSE (Aust) Pty Ltd	Perry, James R	
Coleborn, Danny	Qualtest Laboratory Pty Ltd	
Davies, Lloyd R	Queensland Geotechnical Pty Ltd	
Dick, James E	Railway & Drilling Equipment	
Edwards, Dennis	Raw Materials Laboratory	
Engineering & Construction Lab Assoc	Redlands Soil Testing	
Faithfull, Doug	Roadtest	
Fletcher, Col	Ron Richards & Partners Pty Ltd	
Geo-Investigations Pty Ltd	Sheppard, Graeme	
Geotech (SC) Pty Ltd T/A Soil Surveys Technical Services	Simmons, John Vincent	
	Soil Engineering Services	

**PLEASE PASS THE INSERTED "APPLICATION FOR MEMBERSHIP" TO AN ASSOCIATE TODAY. THE MORE MEMBERS WE HAVE, THE MORE LOBBYING POWER WE HAVE AS AN ASSOCIATION.**

# COMING EVENTS

### Notes:

- Unless altered/approved by the chairman, the above dates will remain fixed.
- Committee meeting date is based on 3<sup>rd</sup> Wednesday of each month.
- Please advise the Chairman in advance if any meeting dates are unsuitable.
- Committee meeting will proceed regardless of individual absenteeism provided a quorum is present.

20 March	Committee Meeting
April	Newsletter No. 1/2002
17 April	Committee Meeting
15 May	Committee Meeting
20 May	General Meeting
19 June	Committee Meeting
17 July	Committee Meeting
5 August	General Meeting
August	Newsletter No. 2/2002
21 August	Committee Meeting
18 September	Committee Meeting
16 October	Committee Meeting
21 October	General Meeting
20 November	Committee Meeting
December	Newsletter No. 3/2002

PROFESSIONAL INDEMNITY INSURANCE  
PRESENTATION TO AGTA 5/8/02

BY MIKE MARLEY, GEOTECHNICAL ENGINEER, EARTHTECH BRISBANE

Professional Indemnity Insurance Premiums and Policy Excesses have increased dramatically for engineering consultants.

- Worst hit have been specialist consultants in the geotechnical and environmental disciplines.
- Many geotechnical consultants have been unable to obtain PI insurance at all.
- Those who have, have been hit with Premium Increases of up to 300% and increases in excesses of up to 1000%.
- In some cases there have been exclusions from cover which have forced practitioners to review and alter the services they offer.
- Increases in bottom line practice costs of 10 to 12% are impacting on practice profitability and forcing review of consulting charge-out rates.
- Those who have not had to renew policies in the last 4 months will be affected when they do.
- Clients (particularly government clients) are not well informed about the problem, often do not understand the way in which PI policies work, and are contributing to the problem by asking consultants to carry unrealistically high PI cover to qualify for commissioning on particular projects.
- It is not uncommon for clients to insist on \$5 million cover for projects where fees earned are of the order of \$20,000. This constitutes complete transfer of risk to the consultant (and his insurer) and not equitable risk sharing.
- It is not well understood that in the current insurance market, while civil engineers may face additional annual costs of \$5,000 to \$10,000/ year to increase PI Cover from \$1 million to \$5 million, geotechnical engineers premiums for similar increases in cover could rise by about \$50,000 P.A.
- The impact of all of these developments constitutes possibly the greatest threat in recent memory to small and medium consulting organisations.
- There is an unfair advantage being handed to large multi national consulting groups which can afford to self-insure. Some actually have their own captive insurers.
- The ultimate impact is likely to be a dramatic reduction in competition from small and medium practices and increases in overall costs of engineering services.
- The Institution of Engineers Australia, Association of Consulting Engineers Australia, and the Board of Professional Engineers Queensland, have been making strong representations at both State and Federal Government level to have the PI insurance crisis treated with the same concern at political level as Public Liability and Medical Indemnity insurance issues.

**EDITOR'S NOTE:** As at 26/8/02, BSA advised that no-one will be penalised if they are unable to procure insurance cover. HOWEVER, you should write to Jason Smith, Executive Manager of Licensing, BSA Brisbane. Tell him that you are having difficulty in getting cover, and ask for his advice. I understand that the matter is under review by the BSA at this moment, and the earliest we can expect an outcome is November. Obviously the representations by the Institution of Engineers and others has had some results. More on this in the December issue.

OBITUARY: PROFESSOR SIR ALEC SKEMPTON

*Peter Vaughan Skempton: doyen of soil mechanics*

ALEC SKEMPTON was one of the most influential British civil engineers of the 20th century. The discipline of Soil Mechanics, the application of engineering science to many different materials, was a late arrival in the theory of civil engineering, perhaps because it involves the complexities of geology. It was formulated by the distinguished Austrian engineer Karl Terzaghi in Istanbul in the 1920s and started to be applied within 10 years. In 1937 Skempton took up the new subject with enthusiasm. He rapidly became pre-eminent in its British development and the doyen of the subject in Britain for the last 50 years.

Born in Northampton in 1914, the only son of Alec and Beatrice Skempton, he was educated at Northampton Grammar School. He went on to study Civil Engineering at the City & Guilds College, then a distinct part of Imperial College, London. Here he developed an interest in geology and an ambition to do research, as well as taking a first class degree and playing on the 1st XV.

He then started research in concrete. However, a job in the concrete section of the Building Research Station at Garston, Hertfordshire, was offered. The opportunity to do research with a salary was then rare. He took a Master of Science degree by research and moved in 1936. A soil-mechanics section had just been set up at Garston led by Leonard Cooling. Attracted by the new subject, Skempton transferred to work under Cooling. There followed a very active period in which the new subject was developed and tried and tested in numerous field applications. Of particular interest was the work done on the collapse of the embankment of Chingford Reservoir in north London during its construction in 1937. It was built faster than was usual, leaving insufficient time for consolidation and gain in strength of the soft clay foundation. *Karl Terzaghi* was brought in by the contractor to give a second opinion. He agreed with the conclusions of the young Skempton. A friendly relationship involving mutual respect developed.

Skempton married Mary (known as Nancy) Wood, a graduate of the Royal College of Arts, in 1940; she was to be his constant companion and supporter until her death in 1993. In 1945 he was invited to give some lectures on Soil Mechanics at the City & Guilds College by Sutton Pipparl, head of the Civil Engineering department. In 1946 he joined the college full time. Within 10 years his soil mechanics group had gained international fame. A year-long postgraduate teaching course was established in 1950. Skempton had assembled a very talented staff, who were encouraged to follow a wide range of interests. The dominant theme remained the observation and solution of real engineering problems.

At this time Skempton was consulted on practical problems at the rate of one per month. The report on each one was meticulously bound by Nancy, who was, among other things, a professional bookbinder. The group still thrives today, perhaps due to the principles on which it was set up. In 1957 Skempton became the second President of the International Society of Soil Mechanics and Foundation Engineering, succeeding *Terzaghi*. He became Professor of Soil Mechanics in 1955 and head of the Civil Engineering department in 1957. He was elected Fellow of the Royal Society in 1961 and a founder Fellow of the Royal Academy of Engineering in 1976.

Skempton dealt with the full range of engineering problems. His synthesis of engineering and geology was particularly noticeable. He made contributions to geology itself, particularly Quaternary geology, so important to his interest in the stability of natural slopes. As the motorway programme developed, he was involved in slips on the Severnoaks bypass, the M6 and the M4, all of which delayed or threatened to delay completion of these new roads. They involved pre-shearing of stiff plastic clays by Quaternary ground freezing. The slip on the M6 occurred contemporaneously to construction of the large embankment dam at Mangla in Pakistan. Similar shear surfaces were found in the foundation. Skempton was involved in studying the problem and recommending remedial action.

In 1984 the large embankment dam at Carsington in Derbyshire developed a slide just before it was finished. Skempton was asked by the owner, Severn Trent Water, to direct the investigations into the failure. These showed the important role of Quaternary geology and of progressive failure in plastic clays, which made the embankment considerably less safe than had been thought by its designers.

The third area in which Skempton worked was engineering history. He was President of the Newcomen Society for the Study of the History of Engineering and Technology from 1977 to 1979 and wrote many papers. He played a significant role in developing the interest of the Institution of Civil Engineers in preserving their own history, helping to change an organisation which threw away old books when it wanted more space to one which has an active archival system and which publishes books on engineering history. Typically, he did a lot of bibliographic research himself, producing, for example, *Early Printed Reports and Maps (1665-1850)* in the Library of the Institution of Civil Engineers (1977).

His great love outside engineering was classical music, and he became a competent flautist in adult life to enhance this enjoyment. He and Nancy were keen croquet players and active members of the Hurlingham Club for many years.

Skempton was an unusual man; a leader by example, not exhortation; a single-minded academic who considered research to be his first priority; a scholar whose approach required intimate association with practical engineering and real structures in the field; a polymath whose multiple interests reinforced and refreshed each other over a long and active career; an engineer who never claimed to be clever but who had a notable habit of being right. As a teacher he always debated with his juniors as an equal, but to those who had prepared their arguments inadequately he gave a very hard time, irrespective of their seniority. His own working habits were meticulous, and he would accept nothing until he had assembled, plotted and analysed the data himself, formed his own conclusions and written it down in his own elegant and much honed prose.

He was knighted in the Millennium Honours list for services to engineering, but said, "Mind, you are still to call me Skem."

Alec Westley Skempton, civil engineer: born Northampton 4 June 1914; University Reader in Soil Mechanics, Imperial College, London University 1947-54, Professor of Soil Mechanics 1955-57, Professor of Civil Engineering 1957-81 (Emeritus), Senior Research Fellow 1981-2001; FRS 1961; Kt 2000; married 1940 Nancy Wood (died 1993; two daughters); died London 9 August 2001.



## Reminder – Site Classifier and/or Onsite Domestic Waste Water Management Licensing

This is another reminder (the third) to all those out onsite domestic waste water management the Building Services Authority (Queensland) for launched a statewide assault on unlicensed contractor Ian Jennings said in December (after a istrate's Court for false representations and carry-tors exposed home owners to the risk of defective gitimate operators. "Given the recent downturn, unfair competition and provide a level playing complying with their legal obligations" he said.



members who are classifying sites or carrying investigations. You must be registered with these activities. In late March early April, BSA tractors, the second in 12 months. BSA Man-Cairns company was fined \$10,000 in the Mag-ing out unlicensed work) "Unlicensed contrac-work and financial loss, often undercutting le-ther is a pressing need to rid the industry of field for contractors who do the right thing by

### All Jokes Aside

#### KIWI HIT WEEK

##### Kiwis on the river.

A Kiwi went for a walk. He came to a river and saw another Kiwi on the opposite bank. "Oy!" he shouted, "how can I get to the other side?"

The second Kiwi looked up the river then down the river then shouted "You are on the other side!"

##### Kiwis on the sun

A Russian, American, and a Kiwi were talking. The Russian said "We were the first in space!" The American said "So what, we were the first on the moon!" The Kiwi said "Well, we're going to be the first on the sun!" The Russian and the American exchanged knowing looks and shook their heads. "You can't land on the sun, you idiot! You'll burn up!" said the Russian To which the Kiwi replied "We're not stupid, you know, we're going at night!"

##### And on the Road

A Police Officer stopped a Kiwi for speeding and asked him nicely if he could see his licence. The Kiwi replied in a huff "I wish you guys would get your act together – just yesterday you take my licence away and then today you expect me to show it to you!"

##### The Ransom Note

A Kiwi was having financial problems so he decided to kidnap a child and demand a ransom. He went to a local park, grabbed a little boy, took him behind a tree and wrote this note:

"I have kidnapped your child. Leave \$10,000 in a plain brown paper bag behind the big oak tree in the park tomorrow at 7 a.m. Signed, The Kiwi."

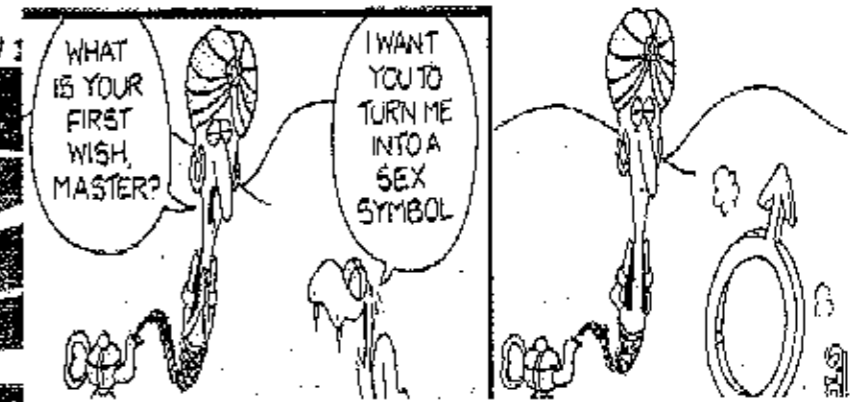
He pinned the note inside the little boy's jacket and told him to go straight home. The next morning, he returned to the park to find the \$10,000 in a brown paper bag behind the big oak tree, just as he had instructed, along with a note which read:

"Here is your \$10,000.00. I can't believe that one Kiwi would do this to another Kiwi".

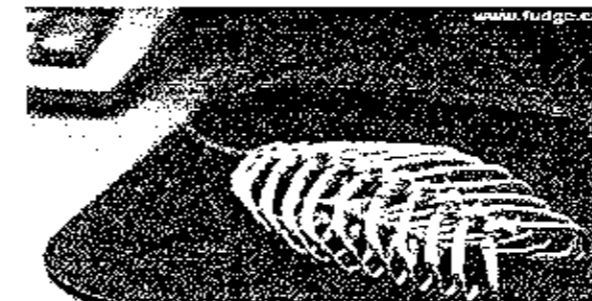
## On a Lighter Note



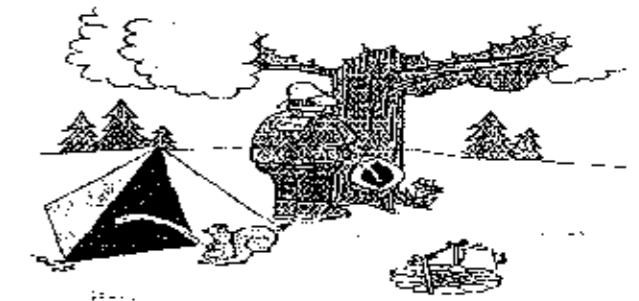
TEAMWORK



"I'm afraid they're going to make us work harder—they've replaced the coffee with Gatorade!"



DEAD MOUSE



NATURE'S REVENGE

