

New Zealand

Country Representative : Stephen Bannister

Specific **Goals and Accomplishments** for New Zealand :

Increase SEG student membership in New Zealand, working towards encouraging new student sections at two of the New Zealand universities. A new student section was successfully formed this year, at Otago University in Dunedin, with the assistance of Dr Andrew Gorman (faculty advisor). I am still encouraging the students and staff at Victoria University of Wellington to form a student section. I am also trying to encourage re-invigoration of the student section at Auckland University, which was originally constituted in the 1970's.

SEG membership in New Zealand is steady rather than increasing, from 20 (2003), to 51 (July 2005) and now to 46 (January 2006). This probably reflects the natural turnover of students and members, with some retirements. Most of the increase between 2003 to the present came from student memberships.

List **potential universities** in your region/country to be added to **SEG Scholarship** mailing list or for potential student sections.

Victoria University of Wellington (for a potential student section; possible faculty advisors are Dr Tim Stern (tim.stern@vuw.ac.nz) and/or Dr John Townend, Research School of Earth Sciences)

I would also suggest placing Auckland University on the SEG scholarship mailing list (advisor : Dr John Cassidy, j.cassidy@auckland.ac.nz)

List geophysical **conferences/meetings/symposiums** that have taken place in your Region/Country this year and plan to take place next year.

The annual New Zealand Geophysical Society symposium took place in Lower Hutt, September 2005, with more than 80 attendees. This years 2006 symposium will take place at Massey University , December 4-7th, 2006, in conjunction with the New Zealand Geological Society.

Membership:

Briefly describe your opinion on what **current SEG members** in your Region/Country “**value**” about their membership in the SEG? (Annual Meeting, Publications, Web Site, International Conferences, Continuing Education Programs, etc.).

The on-line access to Geophysics and TLE back-volumes is highly valued.

It is relatively rare for a New Zealand member to attend a SEG conference in USA, due to travel costs. However some members highly value the ASEG meetings in Australia, which are easier for us to attend. For that reason we would encourage co-sponsorship by SEG of ASEG meetings.

How can SEG **better serve geophysicists** in your Region/Country and **gain new members**? Please list **projects or ideas** you may want to pursue (based on discussions with colleagues, section and student section leaders).

I still receive comment from New Zealand (non-student) geophysicists that the membership subscription is too high for them; average salaries for New Zealand geophysicists are at the lower end of the (geophysicists) salary spectrum for OECD countries.

On-line services which SEG offer for remote members are critical for New Zealand members (e.g. online access to Geophysics/TLE archives). Any further improvement in on-line services would help New Zealand members.

We would highly value any SEG Distinguished visitors, following the talks given here by Dr Heloise Lynn here in 2004.

Student members would highly value sponsorship of travel/accommodation costs to SEG-sponsored conferences (e.g. ASEG), e.g. by SEG Foundation.

Oil and Gas Industry:

Briefly describe the **general status of the oil and gas industry** in your Region/Country (i.e., major players, major fields, politics and the government's role, geophysics as a career).

There is still a reasonably high level of exploration activity in New Zealand, primarily in the Taranaki onshore and offshore region. During 2005 ca 19 wells were drilled by operators for exploration or production development (operators including Greymouth Petroleum; Bridge Petroleum; STOS; Tap (NZ) Ltd; and Austral Pacific). About 16 wells are planned for 2006. A programme of MCS seismic lines was shot during early 2005 offshore East Coast by Crown Minerals NZ.

There are approximately 40 E&P geophysicists working and living in New Zealand, with 2-3 geophysicists on average in each company. There are however 240 geophysicists in total in New Zealand, (based on information from the last government census) of which 93% were employed full-time, and 16% were female. Salaries are predominantly between NZ\$35,000 and NZ\$80,000 per year (corresponding to about US\$21,000 to US\$48,000). Many of the "non-E&P" geophysicists work on solid-earth research (in earthquake seismology, volcanology, earth deformation) because of the presence of the active Australia-Pacific plate boundary, and the associated high levels of earthquake and volcanic activity. These geophysicists are predominantly employed by the Crown owned earth science research institute GNS, (which is similar to the United States Geological Survey), or by one of the six New Zealand universities. Job prospects inside New Zealand are not that good for new geophysics graduate students, so most graduates leave New Zealand to either carry out further graduate studies overseas, or to work for exploration-service companies in Australia and the Middle-East.

COUNTRY/REGION STATISTICS:

Number of SEG members (active, associate, student, etc.) :
46 total : 10 active; 13 associate; 2 emeritus; 21 students

Name(s) of SEG members holding office (chairman of committee, executive committee) in the last five years: N/A

Name(s) of SEG members receiving an SEG award in the last 10 years : N/A

Student Sections:

University of Otago student section (2005-)
University of Auckland student section (1977-)

Top 15 Oil and service companies doing business in this country (headquartered in what city):

Austral Pacific Energy (NZ) Ltd (Wellington)
Swift Energy New Zealand Ltd (Wellington)
Tap (NZ) Ltd (West Perth, Australia)
STOS (New Plymouth)
ROC Oil (Sydney, Australia)

Bridge Petroleum (Auckland)
DiscoveryGeo (Dallas, Texas)
TAG Oil (New Plymouth)
Greymouth Petroleum (Auckland)
Bounty Oil & Gas Ltd (Perth, Australia)
New Zealand Oil & Gas (Wellington)
OMV New Zealand Ltd (Wellington)
Origin Energy Resources (Brisbane, Australia)
Pacrim Energy Ltd (Australia)
Shell Exploration NZ Ltd (Perth, Australia)

Other geophysical societies and number of members (list name and city):

[New Zealand geophysical society \(national organization\), 100+ members](#)

Names (and cities) of major universities with geoscience programs (address and name of faculty advisor if known):

[Otago University \(Andrew Gorman\)](#)
[Canterbury University \(Jarg Pettinga\)](#)
[Victoria University of Wellington \(Tim Stern\)](#)
[Massey University](#)
[University of Auckland \(John Cassidy\)](#)

Percentage of oil production (compared to rest of world) and/or other geophysical activity :

[2004 oil production ca 8 mmbbls/annum](#)
[2004 gas production ca 140 Bcf \(400 mmscf/day \)](#)

(Estimated) Number of geophysicists graduating per year countrywide:

[Estimated number ~10](#)

(Estimated) Number of geophysicists working in the country:

[Estimated number ~120](#)

Is Web Access readily available for students and/or working geophysicists: [Yes](#)

Salary range of Geophysicists – 10 years in the field: [ca US\\$30,000 to US\\$50,000, depending on whether they are employed by the industry or in government research.](#)

SEG continuing education programming (in the last five years)

[Dr Heloise Lynn presented 2 talks on anisotropy in New Zealand in August 2004. We would highly value talks by any other Distinguished Lecturers or other visitors in the future.](#)

Accepted authors for SEG annual meeting (last three years)

[String magnetic gradiometer system: recent airborne trials. Wayne McRae, Alexey V. Veryaskin, David Greager, Li Ju, David G. Blair, Eu-Jeen Chin, Jean-Charles Dumas, and Ben Lee.](#) SEG Expanded Abstracts **23**, 790 (2004)

Conferences sponsored by SEG held in this country (in the last five years) : [N/A](#)