

# Changing face of the industry: the view of the regulator

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## Abstract

The only certainty in today's world is that there will be continual change. Owners of energy and mineral in-ground assets need to be cognisant of these changes and have in place policies and tactics to predict these events, their effects and turn them into advantage or be flexible enough to react quickly. What the resource owner/regulator can do for investors in this continuum of change is provide certainty in its regime and its administration.

Key issues facing owners of energy and mineral in-ground assets include the impacts of technological advances, increasing competition for the highly mobile investment funds necessary to explore and develop these assets and an understanding of what investors are looking for and turning this into a competitive advantage. Super imposed across these are major public policy issues that are changing from local/regional to having a global dimension.

This paper will discuss the type of issues that are important for continuing evaluating and developing of New Zealand's oil and gas industry and discuss some of the initiatives and results to date and where to from here.

## Introduction

Good morning ladies and gentlemen. I look forward to opening this morning's session entitled the "Changing Face of the Industry" a theme worthy of discussion considering today's rapidly changing business environment. We are privileged to have Pete Jeans and Eve Howell discussing this session's theme from the viewpoint of a major oil company and from the exploration investor's perspective respectively. My topic is the "View of the Regulator"

I will briefly cover four topics – the first is the topic itself in terms of what the regulator is, the second will involve a brief "look back" at where we have come from, thirdly where we see ourselves now and what key issues are facing government in terms of the upstream petroleum sector and finally a brief look at our report card.

## The regulator

The "Concise Oxford Dictionary" defines "regulate" as "control by rule, subject to restrictions, moderate, adapt to requirements, alter speed so it may work accurately. When I first joined what was Mines Division, part of the Ministry of Energy in the mid-80s that was the way it was. The Minister and his officials' decisions were seldom challenged. Their word was it and it was done with no arguments or challenges.

Today it is very different. Every decision made by the Minister and his officials is open for intense scrutiny from

all sides of the fence. That is the first change, and it is a significant change that requires officials to be extremely cognisant of the legislation governing the management of their sector, the implications of every decision being made, and to have a very good understanding of the judicial process.

## Looking back

Pre mid-1980s the Government was heavily involved in the upstream and downstream petroleum and gas sectors. Petroleum resources were seen to be of national strategic importance. Investments included a state oil company, investments in pipelines, a refinery, gas-fired generation, and a number of petrochemical plants. These have been subsequently sold off over the years, including the Crown's commercial interests in all but one petroleum licence.

The role of the regulator then was one of managing both commercial and regulatory interest. From the mid – late 1980s, the agency responsible for regulating the upstream industry started providing information to the exploration market. The market was informed that New Zealand has an industry, infrastructure, and very prospective petroleum systems. They recognised that unless New Zealand was out there providing this type of information, New Zealand would not be on the international radar for investment. New Zealand, in fact, led the way by setting up shop at key industry conferences such as the AAPG, APPEA and getting into company boardrooms.

## The present role of the regulator

In 1991, the Crown Minerals Act replaced the Petroleum Act 1937 as the legislative basis for the management of petroleum in New Zealand. The Act required a programme for petroleum to be prepared that would set out the government's policies, procedures, and principles for managing the in-ground petroleum resource. This came into effect in 1995 as the Minerals Programme for Petroleum (1995).

Government policy in driving investment in the upstream sector is set out in the Minerals Programme for Petroleum (1995). The Programme is based on the premise that the desired outcome of its management of the petroleum estate is to allow continued investment in petroleum prospecting, exploration and mining. I will not go into the details of the various policies at length. However, it is worth noting paragraphs 2.7 and 2.8 of that programme.

*“Continuing investment in petroleum prospecting exploration and mining is considered desirable given the strategic importance to New Zealand of access to supplies of petroleum. Over the last two decades, some 65 to 70 percent of New Zealand’s energy consumption requirements have been met by petroleum in the form of natural gas, oil, condensate or LPG. Indigenous petroleum production which makes good use of investment expenditure and is competitively priced and unsubsidised, will benefit the economy. Security of supply issues are less important today than in the past, with fuels like oil and coal readily tradable internationally. This is less so for gas, and there are economic advantages in having a continuing supply of gas available for reticulation to industrial, commercial and domestic consumers and for electricity generation, where cost effective. Continuing investment in petroleum exploration is needed to identify new sources of supply which are cost competitive, given the expected decline and exhaustion of presently producing fields.”*

*“The alternative to allowing continuing investment is to decline to allocate petroleum permits with the outcome of petroleum remaining in the ground. This approach is not considered in the interests of the economy.”*

Accordingly, the fundamental policy objective established for the management of petroleum is:

*“To allow continuing investment in petroleum prospecting, exploration and mining which is in accordance with good exploration and mining practice, always provided that:*

- *there is efficient allocation of petroleum prospecting, exploration and mining permits;*
- *the Crown obtains a fair financial return from the extraction of petroleum by a permit holder; and*
- *there is due regard to the principles of the Treaty of Waitangi.”*

Put simply, the over-arching economic policy goals are efficient allocation and fair financial return to the owner (government), reiterating the Government's view that New Zealand's petroleum resources are a valuable strategic national asset critical to New Zealand's economy. Government policy is for these resources to be effectively managed, including obtaining an appropriate return and having regard to the principles of the Treaty of Waitangi.

## Crown Minerals

So how is this put into effect? Crown Minerals, a group within the Ministry of Economic Development is the government agency responsible for administering the legislation governing New Zealand's in-ground petroleum and minerals resources (the Crown's mineral estate). The government, on behalf of all New Zealanders owns all in-ground petroleum, gold, and silver. It also owns approximately half of the in-ground coal, metallic and non-metallic minerals, industrial and building materials.

Crown Mineral's business objectives are to attract investment in exploration and development, and to maximise returns to the Crown from its petroleum and mineral resources. This is achieved by informing our sector of the business opportunities in New Zealand and providing smart, efficient and principled business services. By international standards, Crown Minerals is a small but focussed group of professionals. We know the drivers of the exploration and mining sector and match the upstream sector's needs with benefits that the Crown's mineral estate has to offer. We are also responsible for implementing the government's requirements and expectations.

The group is not a “regulator” in the strict sense. Rather it is an asset manager. This is a key difference and I want you to hold that asset manager concept. What is the value of this asset? In late 1999 Crown Minerals commissioned work looking at the financial value to the government of the Crown Minerals estate, including petroleum. In short the net present value of the royalty and levies alone from producing assets, plus an amount from likely future assets was estimated using a probabilistic model at \$1.3 billion based on prices of the day. 90% of that value was derived from petroleum<sup>1</sup>. At current oil prices, this figure is currently extremely conservative.

To explore for and develop its petroleum resources the government has options. It can either take on the risk and the rewards itself, funding the necessary capital investments through taxes and profits, or it can lay-off the risks by inviting the private sector to undertake and fund the necessary exploration and developments activities in the expectation of generating profits. In previous years, it was the former. Currently it is the latter.

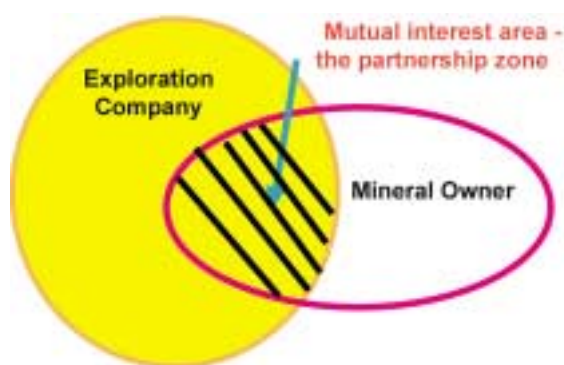
If this strategy is to be successful, the relationship between the owner of the mineral resource and the investor (that is the New Zealand government and the oil explorer) must be a trustful, mutually beneficial, symbiotic relationship.

<sup>1</sup> E.C. Cole (2000) *An Appropriate Return to the Crown from the Petroleum Estate*, New Zealand Petroleum Conference, March 2000

According to McHaffie et.al (1993)

“the contractual relationship between host government and contractor requires co-operation if it is to work. The host government brings its resources; the contractor the technology, financial resources, management and technical skills – all designed to release the value of the resources for the benefit of both parties”<sup>2</sup>

The importance of this statement is a sympiotic relationship must exist between the owner of the petroleum resource (the New Zealand government) and the petroleum explorer (provider of expertise, capital) if oil and gas exploration is to “take off”. The relationship can be viewed as overlapping circles, each circle representing the respective interests and needs of the mineral owner. The overlap is the mutual area of interest that needs to be collectively managed in order to liberate value.



## Business model

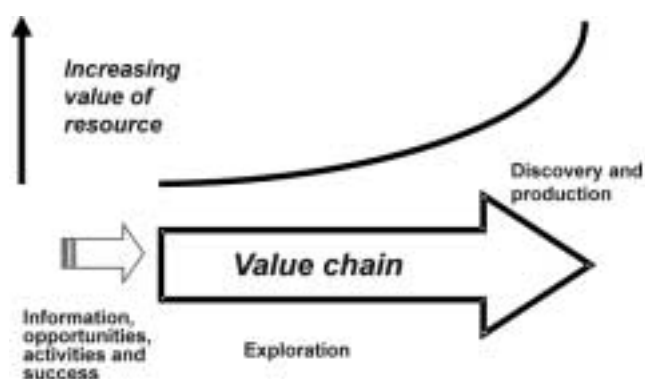
Crown Minerals, through its day to day work, has a very good understanding of the needs and drivers of the upstream petroleum sector. Its responsibilities cover the full value chain of attracting investors to New Zealand through a well-balanced marketing strategy using the full range of the marketing mix. The marketing strategy is based around identifying companies that show a good fit or alignment with New Zealand’s business values. These companies are then provided with objective business information, geological data, up-coming events (block offers etc), explanations of the regulatory requirements, the nature of doing business in New Zealand, and the expectations under the legislation.

At an early stage, we endeavour to establish a business relationship with prospective companies. Those customers that choose to invest in New Zealand’s upstream sector are assisted in terms of the where, how, and what services are available in New Zealand. Once a decision to invest is made, we service the business needs, deliver the regulatory services of administering and monitoring permits, and collect Crown royalties from the development and extraction of the petroleum (and mineral) resource. In addition, we maintain

the business relationship with those having assets in New Zealand, collect Crown royalties from the development and extraction of the petroleum (and mineral) resource. We also advise government on operational issues relating to the Crown owned mineral estate.

A key business tool for Crown Minerals is the Petroleum and Minerals Data Library that manages and disseminates geological data on New Zealand’s in-ground resources. It houses some 2,600 reports on New Zealand’s petroleum resources dating back to the first exploration work carried out in New Zealand. The reports are now being scanned to CD Rom for ease of storage and dissemination. Lodgement of digital seismic and well data is encouraged and interactive catalogues with on-line ordering via our web site are being developed.

At each stage in the business model, value is being added for both the government, as owner of the in-ground petroleum, and the company.



## Key issues and change factors for New Zealand upstream industry

Like any industry, capital will flow to where the best return is, or is perceived to be. There are several key issues facing the New Zealand petroleum upstream sector in terms of attracting capital:

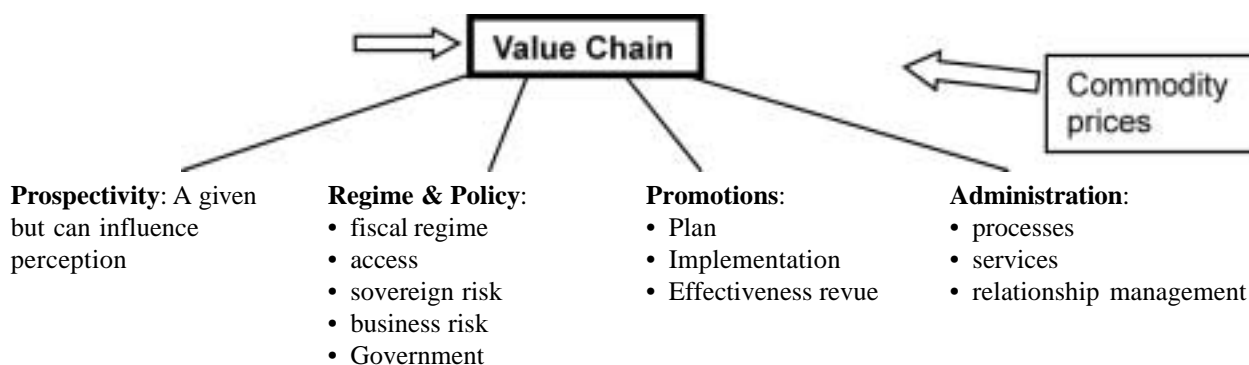
- Commodity price instability created by a witches brew of geopolitical forces that are created by the unique complexities of the murky world of oil, various country and company politics and swaps, OPEC’s finances, and Russian/USA relationships;
- Surplus of acreage on the market - both from countries and companies all bidding for a fixed pool of capital;
- Company mergers and take-overs - who will be the decision makers when investment decisions are being made;
- Technology and labour - are we getting the best? There are fabulous advances here and we need to ensure that New Zealand is benefiting from them.

<sup>2</sup> M.R. McHaffie, M.G. Jarvis, Scott A Barber (1993) *Governments, Contractors Seen headed for Era of Cooperation*, Oil and Gas Journal, April 26 1993.

These exogenous issues we can not influence much. However we can do something about the next list and this is where we put our effort:

- Comparative county competitiveness – competitive fiscal terms, low sovereign risk, transparent business environment;
- Perceived prospectivity;
- Access to data and business information;
- Smart marketing of New Zealand’s attributes;
- Provision of quality, integrity based services.

Let us look at some of these in a bit more detail. A simple model of the drivers can be viewed as a finely balanced table. If one leg is “wobbly” or not sound, the table will fall. All components must be “in sync”.



## Prospectivity

Prospectivity is a given, but the perception can be improved or enhanced by providing quality information at a reasonable cost and by informing the market of activities and successes. We are currently scanning the petroleum geological reports and making the data available in a CD format that can ordered through the web, by phone, or from visiting our data library. Other initiatives include undertaking geological studies and analysis to improve information about key components of the petroleum system. The TGS-Nopec deepwater speculative seismic survey in conjunction with the Institute of Geological and Nuclear Sciences and the associated Deepwater Taranaki Bidding Round is an example of this. We see this as the way of the future in focussing New Zealand on the international arena and attracting new players to New Zealand.

We are continually monitoring our regime in terms of competitiveness. We are continually watching what our competitors are doing because we want to stay ahead of the pack. From our regular contact with your sector and from independent reviews we commission from time to time, we are aware of what is working well and what should be improved to meet the needs of the upstream sector for New Zealand.

I wish to signal that we will be commencing a review of minerals programme for petroleum commencing later this year. A review if the programme is required every 10 years – in this case by 2005. What was working well in 1995 may

not work as well in 2005 with all the changes in technology and concepts.

## Regime and policy

On balance, the regime is good. It is already very competitive, and we are aware that your industry does not want wholesale change. Rather it wants certainty. However to remain competitive there are a few areas of change that we believe need “tweaking”. Crown Minerals will be talking with you on this to get your views and input. Such areas could include the timing of well drilling in genuine frontier acreage and looking at ensuring alternative technology to reduce the risk can be utilised prior to drilling under special, clearly defined circumstances

In terms of broader policy impacting on this sector, we are keeping close tabs on progress towards a New Zealand oceans policy, climate change policy and various other legislative changes. While we are not responsible for them, many of these policy changes may have a significant bearing on New Zealand’s attractiveness as a place to invest in exploration/production.

## Promotions

Crown Minerals has a range of promotional initiatives. We proactively identify and reach directly those companies that have a good fit in terms of business alignment for New Zealand, and the technical and financial resources to sustain an effective exploration and development programme. At the other end of the spectrum companies approach us. We provide factual technical data and business information, so that a company has all the appropriate information on which to base a sound business decision. A key plank is the development of a business relationship at an early stage with potential and current permit holders and investors. If New Zealand Inc. is not out there with the lights on New Zealand, we will soon fall off the international radar screen.

## Administration

A vital leg often overlooked is the service delivery – the administrative end of the business. It not easy to attract investment to New Zealand, but once here, we intend to

keep it by giving good, integrity based services – like after-sales-service. We believe, however, that we can always do better and we are continually trying to improve our act.

This is the business end of the shop where we get to have the close business relationship with you. We will continue to keep you up to the mark with your work programme, sometimes having to gently or not so gently nip at your heels. We have anecdotal evidence that something like 70% of all wells drilled in the world are drilled because of regulatory requirements rather than solely on the basis of company timing. Our own experience tends to confirm this and some recent discoveries owe their timing to this regulatory framework. Put simply, technically sound wells must be drilled to find petroleum. The more wells drilled in New Zealand, the greater the chances of finding petroleum and gas to ensure a sustainable, viable indigenous gas and petroleum industry. This is a key driver for Crown Minerals' business.

## Report card

Before we look at this it is timely to recall Lloyd Taylor's very succinct analysis of the New Zealand gas (and petroleum) sector presented at the last petroleum conference. He concluded that New Zealand lacks the scale to ensure a sustainable gas industry and the approach of many stakeholders mitigated against achievement of scale. Significantly, he concluded that the level of exploration drilling based on a historical average of 4 per year is only one third of what is required to ensure a sustainable gas industry.<sup>3</sup>

Since then, the Pohokura discovery has been confirmed and the Rimu Field appraised with a mining permit awarded. New Zealand gas and liquid reserves are 2080 Bcf, 90 mmbbls (9 and 7 years reserve/production ratio at current depletion rates). With the addition of the stated reserves for the

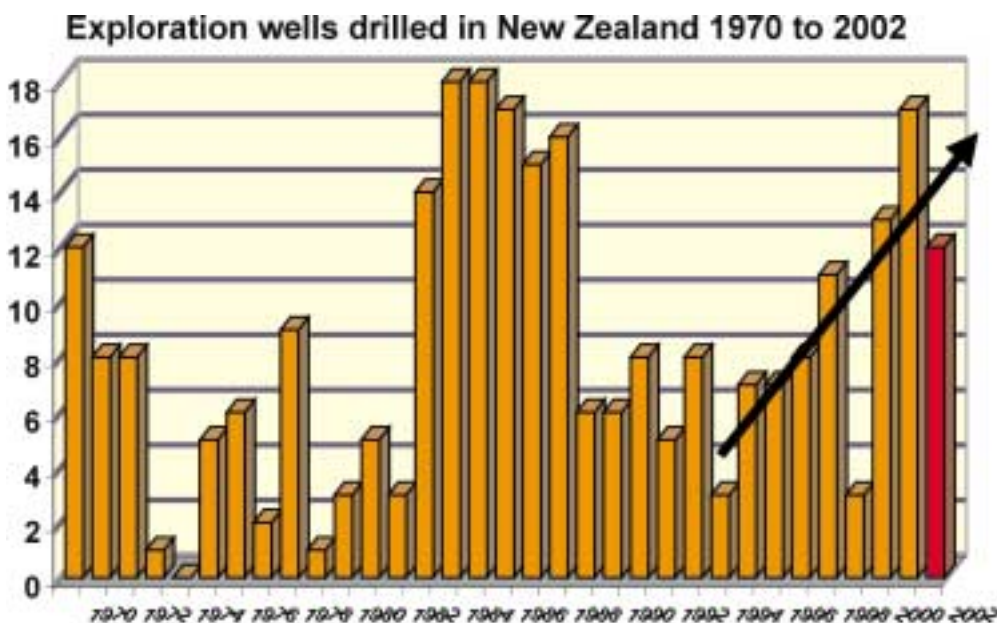
Pohokura and Rimu Fields (within the mining permit for Rimu) this is 3150 Bcf and 174 mmbbls (14 and 14 years) respectively<sup>4</sup>. However, with the announcement of the Maui gas condensate field being depleted two years earlier, new gas discoveries are needed urgently.

In terms of exploration wells being drilled, numbers have been increasing steadily since 1994 when three wells were drilled, to 13 and 17 explorations wells being drilled in 2000 and 2001 respectively. The prognosis of 2002 is 14 exploration wells.

While there appears to be three times as many wells drilled than the historical average of 4 per year, apart from the Pohokura discovery in 2000, no exploration wild cat wells have been drilled offshore since then. It is disappointing to note that offshore permits in both Taranaki and East Coast with prospects ready to drill did not proceed because of lack of sufficient funds and additional partners to underwrite an intended offshore drilling campaign. This is a concern for us.

Notwithstanding this, 2001 was the year New Zealand first moved into the top 20 most attractive countries in the world for petroleum exploration investment, according to IHS Energy Group's PEPS ranking. New Zealand gained an overall country ranking of 19<sup>th</sup> out of 103 countries in the exploration attractiveness survey for the September quarter of 2001 — up five places from 2000 and up 18 places from 1999. The most recent report for the December 2001 quarter shows New Zealand's rank improved even more to 17<sup>th</sup> position.

The big improvement in the rating is mainly due to an increase in exploration activity in New Zealand. The overall country ranking is based on each countries recent performance rankings for three factors which contribute to the countries competitiveness — exploration and production



<sup>3</sup> L.W.H. Taylor (2000) *Achieving a Sustainable Gas Industry* 2000 New Zealand Petroleum Conference Proceedings

(E&P) activity (which is given a 50% weighting), political and commercial stability (weighted 15%), and the fiscal regime (weighted 35%).

New Zealand is again ranked 4<sup>th</sup> in the world for political risk. This continues New Zealand's long-standing record for its stable and open political and socio-economic systems and for its sound commercial environment. In fiscal rank, New Zealand is rated 17<sup>th</sup> in the world. Fiscal rank reflects how government taxes and royalties affect investment returns. In E&P rank, New Zealand improved five places to 40<sup>th</sup>.

Regionally, New Zealand is ranked No. 1 by IHS Energy among the 17 countries of the Far East-Australasian region in both political and fiscal rank. New Zealand ranks fourth overall in the region as a place to explore.

The pending onshore near-shore Taranaki bidding round, closing end of April 2002, has focussed interest in New Zealand and the level of proposed exploration activity. A healthy interest in this round from a number of new players along with existing players.

The speculative deepwater seismic survey offshore Taranaki undertaken by TGS/Nopec mid last year and a being analysed by IGNS is an exciting initiative. Early indications from the preliminary analysis show promising signs for exploration in the area. The survey shows good evidence of potentially large reserves in the deepwater. The provisional timing for the deepwater bidding round is for blocks to be advertised by October 2002 with a likely closing date of July/September 2003. There will be an extensive marketing programme to ensure all the majors are aware of the data and the bidding round.

Open acreage offshore Canterbury will be on offer in the near term and Crown Minerals commissioned a study on source rock attributes and potential for the area. Provisional dates for the Canterbury block offer are to announce the blocks by July 2002, with a closing date in early 2003.

## Conclusions

The key point I want you to note is that Crown Minerals is not just a "regulator" in the strict sense. We are, on behalf of the government, managers of a large asset critical for driving New Zealand's economy.

How does New Zealand stack up in terms of attracting investment dollars? There is general acceptance that New Zealand has got its fiscal terms, the regulatory regime and administrative processes right – they are amongst the best in the world in terms of entry costs, a business friendly environment, and professionalism. This does not mean that we can not improve all these aspects, and we have every intention of doing so. With you, we will work to determine what changes could be made to the benefit of all concerned, but this does not signal a major change in direction.

Has Crown Minerals been successful with its promotional strategy and the implementation of it? The results in terms of increased activity measured by seismic activity and well drilling certainly do demonstrate success. However results in terms of offshore well drilling over the last two years are mixed. In the years 1999 to 2000, over \$300,000,000 have been invested in exploring and developing New Zealand's hydrocarbon assets. If production is included, the investment figure rises to over a half a billion dollars over the two years.

We have done well in attracting small North American independents that are particularly suited to many of our onshore basins. This has resulted in the increased activity in the onshore and shallower offshore areas.

We have been less successful in terms of attracting the middle to large multi-national companies. Within this segment of the upstream industry there tend to be strongly held views that New Zealand's prospectivity is low, or the country is universally gas prone, and that the size of fields tend to be small. This is an area within our marketing strategy where we work hard to change perceptions.

Increasing interest has given rise to more competition for acreage and hence more aggressive work programmes; that is more wells drilled. Wells must be drilled to find petroleum. In simple terms the more wells drilled the better the chances of finding petroleum, including gas, to ensure a sustainable viable gas industry. This is a key driver for Crown Minerals' business that we will continue to abide by.

While Crown Minerals continues to pursue the larger multinational segment of the market, it is my view that the success of the independents will play a significant role in attracting and securing the "top end" of the market. The move towards deep-water has brought some interest from this sector of the exploration market. Like Crown Minerals, they obviously see great potential for large discoveries, and the outcome of the TGS/Nopec survey is eagerly awaited.

Crown Minerals will continue to improve its input into the value chain from promotion to discovery; ensuring the symbiotic relationship between the government and the explorer is robust. Key elements are to ensure a complete and competitive regime is in place and to keep the upstream sector well informed of New Zealand and the opportunities available. Good processes designed to meet the needs of explorers and developers will support this.

There are some interesting events coming up – the near-shore/on-shore Taranaki bidding round, deep water Taranaki speculative survey and bidding round, Canterbury bidding round, opportunities for acreage through Acceptable Frontier Offer (AFO), development of Pohokura. A number of other prospects are sitting out there awaiting more work. There will be plenty of drilling activity with 14 exploration wells proposed to be drilled during 2002.

## **Author**

DARRYL THORBURN is currently the group manager of Crown Minerals, a group within the Ministry of Economic Development responsible for the management of the Crown's in-ground petroleum, coal and mineral assets. On completion of an MSc degree at the University of Canterbury he worked in South Africa and Australia as an exploration and mine geologist, primarily in base and energy minerals. On his return to New Zealand in 1979 he joined New Zealand State Coal Mines and was responsible for the integration of mining geology into a New Zealand wide government funded coal exploration and mine feasibility study. Following this Darryl has had extensive experience in the management and administration of mineral and energy resources for the New Zealand Government.