

TAKING THE LONG VIEW



Mining is an essential industry and part of New Zealand's heritage. It remains a significant component of our economy today, responsible for the employment of over 10,000 people and generally providing a substantial segment of household income on the West Coast of the South Island and in Waihi and the Waikato in the north.

Mining comes in many different forms – aggregates, precious metals, coal, iron sands, etc. These industry products are direct or indirect components in everything New Zealanders consume. They provide significant export revenues, which have the potential to increase in the future.

The facts are not widely reported, but this year a comprehensive poll carried out in New Zealand by Pauline Colmar Research found that:

- 1) 77% are very concerned or quite concerned about New Zealand's standard of living over the next 5-10 years.
- 2) Only 21% disagree or strongly disagree with the statement that 'we should be making greater use of our coal resources'.
- 3) Only 33% disagree or strongly disagree with the statement that 'coal mining in New Zealand is undertaken in an environmentally responsible way'.

Stevenson has been involved in mining since 1938, when we acquired the Drury Quarry. In the mid-1950s Stevenson began work on the Kopuku (now Kopako), opencast mining site in the Waikato. In addition to our current contracting work at the Rotowaro and Coaldale mines, Stevenson has an interest in a coal deposit. We are in the early

stages of confirming the viability of this resource, along with evaluating the practical considerations of accessibility and market dynamics. If the outcome is positive our aim is to employ local people.

Our focus is on building an effective and sustainable contract mining operation. We seek to apply a high standard of resource extraction, processing, health and safety and environmental methodologies to all of our projects.

The report from the Royal Commission inquiry into the Pike River Mine tragedy proved a wake-up call for the Government and many involved in the mining industry. Importantly, it will provide a greater focus on health and safety across New Zealand and will provide impetus for improvement in this area – something that Stevenson welcomes and takes an industry leadership role in.

Finally, I'd like to take this opportunity to wish you and your family a safe and happy Christmas and a prosperous New Year. Thank you for your continued support in 2012 – without our customers and suppliers we wouldn't be in business.

MARK FRANKLIN Chief Executive, Stevenson Group

Stevenson knows. **Engineering.**

A BIG-TIME OIL AND GREASE



The project's Leading Hand and Field Service Engineer Greg Donald completes the final installation of the trolley auto lube system on one of the Ports of Auckland ship to shore cranes.

Ports of Auckland ship-to-shore cranes play their part in oiling the Auckland economy, by unloading goods from ships as quickly and effectively as possible.

Until recently crane parts were re-greased manually. Because access to the grease points was awkward, there was no guarantee that every part of the crane was receiving the required amount of oil. Without comprehensive regular greasing, cranes are at greater risk of breakdown from bearing failures. With three cranes weighing 1250 tonnes and two weighing in at 1150 tonnes, the number of grease points is over 1000 per crane. Reducing down time for repairs of these large cranes is vital.

When Ports of Auckland (PoA) approached Stevenson Engineering to provide a solution which would automate the oil supply, Stevenson's Field Service Mechanic Greg Donald launched into R&D mode – a particularly challenging aspect of the project.

'Greg's knowledge and research skills have been a key factor in the success of the job,' says Stevenson Field Service Supervisor Kevin Hickey. 'He sourced the best available system in the market, and then Stevenson Engineering designed and added additional componentry to ensure that the system would effectively integrate with the crane's operation.'

In April this year Stevenson Engineering commenced project installation, with four staff working on the job at any one time.

One of the project's challenges has been gaining access to the cranes between unloading schedules. 'We offered the flexibility to go on site at short notice and the capacity to work six days a week as required,' says Kevin. 'We've drawn on the pool of experience and expertise at Stevenson Engineering to tackle this project. We've been able to get the best result by

making components in-house, using our machine shop for fabrication. We've also been able to provide staff who are certified to work at heights. This has been essential, as our team have sometimes been working at heights of up to 50-metres.'

'We chose Stevenson Engineering for this project because of their extensive background maintaining fleet equipment,' says PoA Operations Engineer John Miller. 'We wanted to tap into their expertise in preventative maintenance. We were confident that Stevenson had undertaken a thorough investigation into the best solution to our problem. They selected the right equipment, designed it, worked it and followed through from beginning to end, providing a very high-quality installation.'

'We've appreciated having Stevenson's Greg Donald as a leading hand. He took ownership of the project, from investigation and planning to overseeing the installation. It's now safer, faster and more effective to service the cranes. Oil is added automatically while the machine is working.'

The new automated system will ensure that all parts of the cranes are greased. PoA has a preventative maintenance system that will minimise future down time for its cranes.

The job is now 50% completed. Next Stevenson will work on three or four smaller PoA cranes to install the same automated system.



The main overburden fleet includes Komatsu PC4000s and Caterpillar 789C dump trucks.

YEAR ONE AT ROTOWARO

2011 - The preparation

Jun Appointed contractor >	Jul Recruitment commenced >	Aug Plant and Machinery >	Sept Management plans >	Oct Inductions and training >	Nov Infrastructure and comms >
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2012 - The first year

Dec Contract start >	Jan Production targets exceeded >	Feb Residents meeting >	Mar Install fuel infrastructure >	Apr New haul road >	May Win deepest coal >
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Jun K Garrick appointed Stat Mgr >	Jul Rotowaro Awards introduced >	Aug Contractor Forum held >	Sep Trialled recycled material on coal roads >	Oct time clock installation "go live" >	Nov PC4000 moves 60,000 bcm of soil >
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Stevenson knows. **Mining.**

ROTOWARO – ONE YEAR ON

Stevenson Mining has now completed its first year as the mine contractor at Rotowaro in Huntly. Owned by Solid Energy NZ (SENZ), Rotowaro is New Zealand's second largest open-cast coal mine.

Stevenson is contracted to remove the overburden, extract and process coal and progressively rehabilitate the mine. The company's five-year contract at the mine began on 1 December 2011 with a celebratory dawn breakfast attended by staff from Stevenson, Solid Energy and key suppliers.

The first year has been a busy, exhausting and exhilarating journey. A year ago the mining industry was in good shape, jobs were plentiful, but plant and equipment were scarce. Prior to taking over the contract Stevenson recruited, trained and inducted 110 staff and sourced and purchased significant plant and equipment from both New Zealand and internationally. Management plans were prepared and infrastructure and communications were established.

Today the team includes machine operators, mechanics, Rotowaro management and Stevenson Group support and IT staff. Other Stevenson companies also provide essential support – Stevenson Engineering for mechanical repairs, Rocktec for fabrication and Stevenson Resources for aggregate supplies.

From the outset both Solid Energy and Stevenson were determined to work as one team to keep communication clear and straightforward and to avoid duplication, to be open and honest and to share information. Health and safety remains a key focus for both companies.

'It's great coming back to Rotowaro, working again with people whom I first got to know and work with in the early 1980s. I also have the privilege of working with a new generation of coal miners,' says Stevenson Mining General Manager Mike Coleman. 'The contract has been a great success. We are operating the largest plant and equipment in any coal mine in New Zealand. During the first year we removed 6.9 million bcm of overburden and 1.3 million tonnes of coal. We've managed to do this with no lost time injuries. I'm very proud of our team and what they have achieved.'

'We've exceeded all targets. I put this down to excellent teamwork and also to the strong support we've had from Solid Energy. They're great to work with – nothing is ever too much trouble.'

'The mine is in good shape,' says Mark Paris, General Manager, Rotowaro Mine. 'We're pleased that since taking over the contract Stevenson Mining has met our production targets for the first 12 months. Stevenson's strong people values combined with its ongoing systems development and a culture of continuous improvement has created a positive work environment and a mine that everyone is proud of. Solid Energy is appreciative of Stevenson's efforts to date. We look forward to the forthcoming year and to continuing to work together as one team.'

The chart below shows some of the key achievements during the first year. Although too many to list, they also include the establishment of joint publications – Rotowaro Bulletin and MineSafe, trial emergency response simulations (to test our processes), regular WALKs, meetings with residents and students, Jonah training (risk management training for supervisors and managers), Health & Safety audits and the establishment of a joint intranet.

A new coal haul road was constructed to improve traffic flows and haul distances. The pump system to remove water out of the pit from the main mine sump was replaced. Cutting-edge fingerprint technology is now used to record staff hours on the job. Compac software was installed to record fuel usage.

Stevenson Mining Commercial Manager Anne Brewster says: 'Although the international sector has slowed down, at Rotowaro it's very much business as usual. We've got production targets to meet. The majority of Rotowaro's coal is supplied to Genesis Energy's Huntly Power Station and New Zealand Steel's Glenbrook steel mill.'

Stevenson knows. **Concrete.**

WELL PLAYED

An opportunity to contribute to a \$20 million upgrade of the facilities at the AUT Millennium Campus saw Stevenson Concrete supply 2000m³ of in-situ concrete to main building contractor Argon Construction.

The campus, located in Mairangi Bay on Auckland's North Shore, is the home of high-performance sport in New Zealand. It provided a base for many of the Kiwi team who competed at the London Olympics. It also houses healthcare services and sport facilities open to the public.

The 18 month-long project has resulted in a doubling of the floor area, an expanded sports medicine centre, High Performance Sport New Zealand headquarters and AUT's Sports Performance Research Institute New Zealand laboratory. The project involved construction of a new four-storey block, new gym and new atrium entry and refurbishment of the existing facilities. It was officially opened by the Prime Minister in June this year.

The significance of the new facilities was highlighted in a visit from Prince Charles and his wife the Duchess of Cornwall, Camilla Parker-Bowles, in mid-November, as part of their five-day New Zealand tour.

Stevenson Concrete began supplying to the AUT Millennium project in March 2011, completing the job in early 2012. The pebble mix in the atrium entry, which was ground, polished and coloured by Solid Floors was a significant feature of the project

One of Stevenson Concrete and Argon Construction's main challenges was to ensure that work, including concrete pours, did not disrupt activities in a busy campus. This required

temporary walkways and covered or sectioned-off areas. Safety was a priority as there is a sports field and a large carpark shared with Rangitoto College where young people come and go. The campus is also open to the public.

'Stevenson supplied all of our concrete to this job,' says Argon Construction's Todd Morris. 'Their service and supply was top notch. The big thing for us is that they get the concrete to site on time. Stevenson worked on the pebble mix in the atrium to get it right. The challenge was then to lay it without cracking or walking back through it to ensure a good surface for grinding and polishing.'

'This was an important project for Stevenson on a high-profile site and we enjoyed working with Argon to contribute to the further development of such a significant sports facility,' says Stevenson Key Account Manager Scott Williams.

Stevenson Concrete had previously worked with Argon Construction on the Next Generation Health & Fitness Club at the Auckland Domain and the Mercy Hospital. It is currently working with Argon on a North Shore Hospital Elective Surgery project.



Architect: Pacific Environments Architects
Main contractor: Argon Construction
Concrete supplier: Stevenson Concrete
Concrete layer: Brewis Concrete
Floor polishing & colouring: Solid Floors



Construction of the bridge beams at Steltech workshop.



The new Atiamuri Bridge as one of the stringers (bridge beams) is put in place by crane. Images supplied courtesy of NZTA.

Stevenson knows. **Engineering.**

BEAM US UP, SCOTTY

Steltech recently completed the challenging task of fabricating 12 massive steel beams as components of NZ Transport Agency's \$24 million Atiamuri Bridge Replacement Project.

The bridge project is being built by HEB Construction on State Highway One at Atiamuri, 39 kilometres north of Taupo and 75 metres upstream from the current Atiamuri Bridge, which crosses the Waikato River.

In November 2010 Stevenson Engineering took over responsibility for the manufacture of the Steltech range of products and is responsible for the beam assembly operation at Spartan Road in Takanini for New Zealand Steel.

Stevenson Engineering's Steltech team supplied the last of the 'naked' steel beams (no cleats or gussets) to Grayson Engineering (which was contracted by HEB Construction) in late October. This milestone represents the end of a journey which began about four months earlier when the Stevenson team started developing a specialist weld procedure.

The steel beams range in length from 23 to 25 metres with the maximum weight of the heaviest beams reaching 30 tonnes. The sheer size and weight of the beams required the deployment of as many as three cranes at one time to move them into position in the Steltech workshop and involved the construction of purpose-built jigs to support them.

The Steltech fabrication and weld teams worked together to determine the process for fabrication and welding to ensure that both the health and safety aspects as well as the technical aspects of the work were considered.

From a technical perspective, specialist weld procedures were developed which included undertaking numerous test samples.

Industry weld standards to NZS 1554 were applied and then independently audited and inspected by Materials & Testing.

Stevenson's Steltech team of experienced fabricators and welders included Sean Crean, Graeme Way, Mark Smith, Fangupo Akana, Pete Mackay and Goce Bocevski. Team members pooled their skills and knowledge to turn a challenging and complex engineering design into manageable Kiwi solutions, delivering

the required weld standards to a tolerance of only 0.8 mm. They worked on extended shifts seven days a week to meet the project's requirements.

Another aspect of the project was quality control and the requirement to number every plate and weld in batch order sequence. Fortunately, Stevenson Engineering already operates an ISO 9001 quality management system and has the systems in place to accommodate such project requirements.

SH1 is a significant freight route and the new bridge will ensure route security and improve safety, reliability and access along this section of highway. Completion of the new bridge will also bring regional and national benefits while stimulating economic growth in this area and New Zealand-wide.

The project is on track for opening the new bridge to traffic in April 2013. Progress on this project including webcams updated in real time can be viewed online at www.nzta.govt.nz/projects/atiamuri-bridge.

Stevenson knows. **Aggregates.**

BLENDED TO PERFECTION



Ngaruawahia alignment looking south towards Taupiri. Image supplied courtesy of NZTA.

Stevenson Resources has been awarded the contract by Higgins (sub-contractor to main contractor Fletcher Construction) to supply 100,000 tonnes of base course aggregate for the New Zealand Transport Agency's Ngaruawahia section of the Waikato Expressway.

When complete, the Waikato Expressway will be the key strategic transport corridor for the Waikato region. It will reduce travel times and congestion on SH1 by delivering a four-lane highway from the Bombay Hills to south of Cambridge.

'This is an important contract for Stevenson on a high-profile job,' says Stevenson Sales Representative Rick Martin. 'We've developed a solid relationship with Higgins over the past four years, having worked with them to supply aggregates for various projects including the Victoria Park Tunnel.'

'Our Huntly pugmill was one of the factors in Stevenson being selected for the base course supply contract. It is very accurate, giving us greater control over aggregate grading and enabling us to produce large volumes very quickly. This gives the contractor greater consistency and helps with laying and compaction on the new pavement.'

Quality control tests are performed at regular intervals by Stevenson Laboratory to ensure that the product is up to the standards set by the NZTA. The pugmill is a vital tool in ensuring that the consistency of product is maintained.

In addition to the 100,000 tonnes of aggregate contracted, in conjunction with NZTA, Stevenson will produce specially blended aggregates for a 500-metre trial section. These trial sections will enable the NZTA

to validate new pavement designs, which they can monitor over a period of time. The knowledge gained will contribute to improving the durability of our highways.

Stevenson's Huntly quarry introduced two shifts to keep the plant operating 15-18 hours per day to deliver the required volumes of aggregates. Extra resource and expertise from Drury Quarry is also being used.

Stevenson's Warren Coe supervises the day shift and Fred Cole the night shift. 'Our goal is to ensure that the plant will run consistently on night shift and stoppages and breakdowns are avoided,' says Warren. 'This means looking ahead and undertaking any necessary maintenance and repairs during the day and ordering parts in advance.'

Both Warren and Fred say that the key to successfully operating double shifts is teamwork and good communication, particularly with regard to production scheduling and health and safety. Warren is careful to ensure that Fred and the night team are aware of any hazards which might be less apparent when it's dark. Supervisor Fred Cole is temporarily staying in Huntly during the project. His wife Mabel has remained at Drury, holding the fort for their family and for Stevenson – she is responsible for the Weighbridge at Drury Quarry.

'At night we use big lights mounted on a lighting tower which enable us to see the whole quarry face,' says Fred. 'We work hard to feed the mobile crushers, going at a steady pace and aiming for consistency. It's important to ensure that the product doesn't become contaminated during the production process.'

Stevenson began supplying Fletcher Construction late last year. The bulk of the aggregates will be supplied over the next six months. The contract is expected to run until around May/June 2013.

SPONSORSHIP

ON YOUR MARKS, GET SET, GO!



Not even the foul weather could dampen the enthusiasm of the 330 entrants in the Stevenson Mining Source to Sea Cycle Challenge which took place on November 3rd.

It was an action-packed event with eleven energetic staff from across the Stevenson Group participating. Members of Stevenson's IT relay team, Fritz Rasch, Ahmar Warsi and Andries van der Westhuizen, were placed first in the men's category of the 160km race. Bob Hastie from Stevenson Mining was placed third in the men's 35km section and Tracey Holmes, also of Stevenson Mining, was placed fourth in the women's 35km section. Stevenson's Anne Brewster, Geoff White and Ross Ashby all completed 160km as solo entrants.

Stevenson Mining stepped in to take over as primary sponsor of the challenge for the first time this year. Stevenson is exploring mining opportunities on the West Coast and Buller regions and wanted to support and participate in this enjoyable community event.

The race started at St Arnaud (at Lake Rotoiti, south-west of Nelson) and finished at Carter's Beach in Westport. It offers cycling challenges from 35km and 100km to 160km. The scenery is spectacular. The race profile is downhill (well, at least in theory). And at the race conclusion participants and visitors can take advantage of whitebaiting season in Westport and enjoy the local whitebait fritters.

'It's a very worthwhile community-oriented event and a great way to get staff and friends to bond outside work,' says Stevenson Mining's General Manager Mike Coleman. 'During the ride everything is looked after so you just need to concentrate on enjoying the view.'

'We'd like to thank ANZ Bank for providing assistance to fly Stevenson entrants down to the race. Thanks are also due to Fulton Hogan which assisted with traffic management support.'



GRAND RE-OPENING OF WEIRD AND WONDERFUL

The popular Weird & Wonderful hands-on family gallery at the Auckland Memorial Museum was given a three-month makeover and re-opened to the public with a breakfast event on 1 December. Stevenson sponsors this gallery and is delighted to have it available to families and kids again in its new incarnation. Middlemore Foundation, which Stevenson also supports, invited some of the kids they work with to join in with the re-opening activities.



TAMAKI PAENGA HIRA
AUCKLAND WAR MEMORIAL MUSEUM

**OUR PEOPLE
EHS CHAMPIONS**

Reflecting the Stevenson Group's strong focus on Environmental Health and Safety, a new initiative was launched earlier in this year – the creation of the EHS champion. Each business unit has nominated an individual as a champion.

Each champion has been identified as someone who has the passion and determination to stimulate and inspire their business units to improve health and safety. The champions support each other by sharing knowledge and information in practical and relevant ways – new ideas, experiences and skills can be leveraged to greater effect.

Some of the champions already have a role in health and safety while others have stepped up to the challenge, since completing the Stevenson supervisors' training course. Their role is to assist the Group on its journey to achieve zero harm within the workplace. The champions meet quarterly and senior executives also attend, including Chief Executive Mark Franklin.

'I want our people to go home the way they arrived and to make sure that health and safety is integral to what we do and not a separate thing,' says Mark.

Stevenson EHS Manager John Casey, who co-ordinates the Champion meetings says: 'I encourage people to tell it like it is. Our EHS champions want to do the right thing. They're trying hard and getting good results. They're putting health and safety on the map and I am proud of what they're achieving.'



Steve Ellis receives his Award for Services to the Industry from Quarrying & Mining magazine Editor, Allan Titchall.

Q&M EDITOR'S AWARD 2012

Steve Ellis, Stevenson Resources General Manager, received Q&M magazine 2012 Editor's Award in acknowledgment of his many years of services to the quarrying and mining industry. Steve is a fellow and past president of the Institute of Quarries, holds an A-Grade Quarry Manager's Certificate and has a lifetime of experience in mining and quarrying. He began working for Stevenson in 1973 and has held his current role of General Manager, Resources, for the past 20 years.



STEVENSON INVOLVEMENT WITH GETBA

Stevenson Engineering CEO Tony Coombe has been appointed as a committee member on the Greater East Tamaki Business Association (GETBA). Stevenson was a founding member of GETBA and his involvement reflects Stevenson's continued desire to contribute to the local business community. East Tamaki is the largest industrial precinct in Auckland, with some 2000 businesses employing 30,000 people. GETBA enables commercial owners and occupiers to become involved in this rapidly changing business community.



www.stevenson.co.nz

STEVENSON GROUP	STEVENSON CONSTRUCTION MATERIALS	STEVENSON MINING	STEVENSON AGRICULTURE	STEVENSON PROPERTIES	STEVENSON ENGINEERING	
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