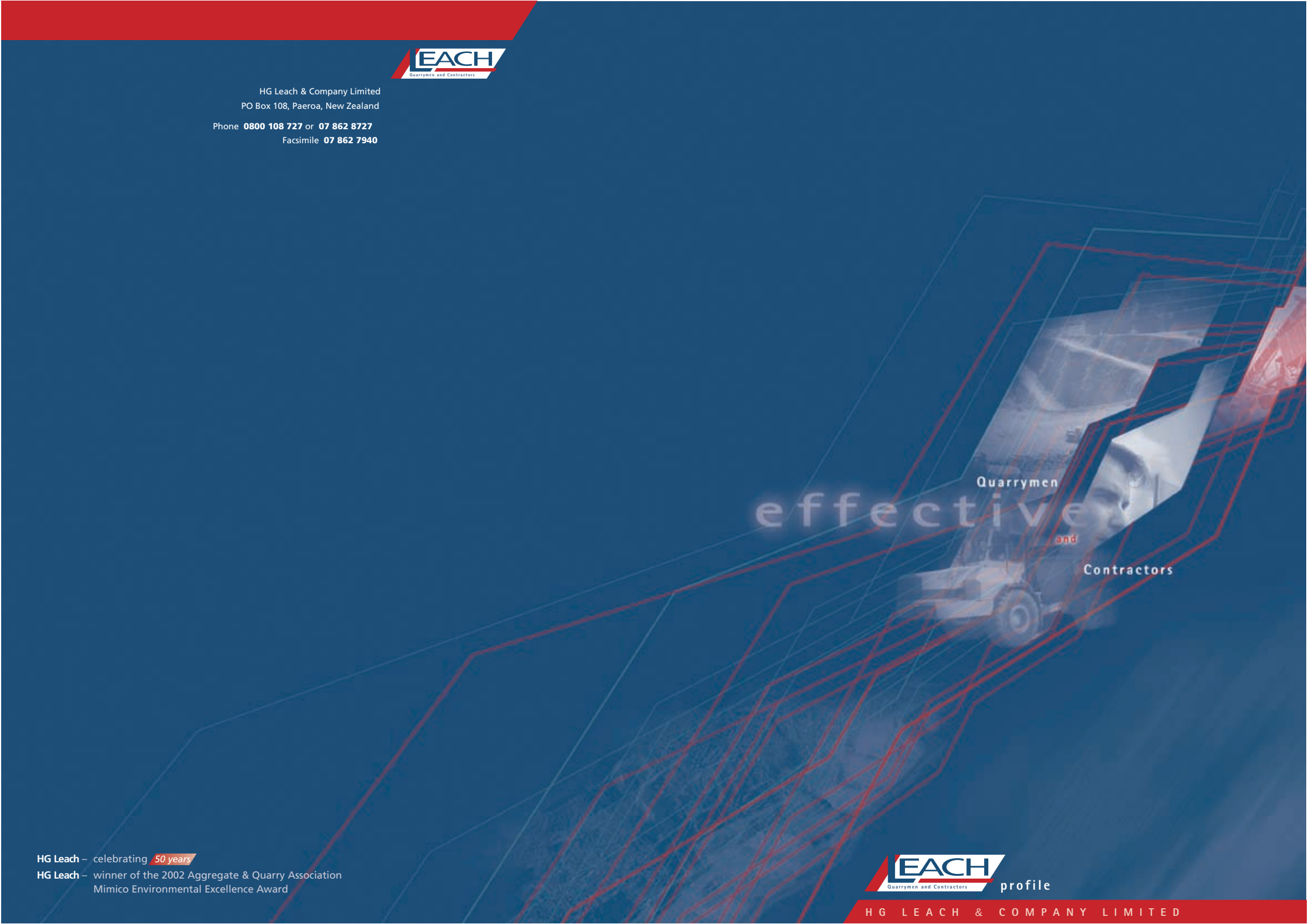
HG Leach & Company Limited
PO Box 108, Paeroa, New Zealand

Phone **0800 108 727** or **07 862 8727**
Facsimile **07 862 7940**



HG Leach – celebrating *50 years*

HG Leach – winner of the 2002 Aggregate & Quarry Association Mimico Environmental Excellence Award

profile

HG LEACH & COMPANY LIMITED

effective management

To be effective, a quarrying and contracting company needs a diverse range of skills, multiple supply sources, flexible transport options, superb equipment and – above all – experience.

HG Leach & Company Limited

HG Leach & Company Limited is a privately owned New Zealand company with interests in quarrying, contracting, solid waste disposal, plant and equipment and road and bulk cartage.

From its base in the Thames Valley – an area rich in high quality volcanic rock – HG Leach has extended its operations around the central North Island over the course of 50 years. The company's reputation for outstanding quality, its strategic placement in relation to key urban markets, and highly effective transport fleet, have all combined to allow HG Leach to expand its operations beyond traditional geographical boundaries and into areas of high demand.

Experience is the key factor that underpins all HG Leach operations. Fifty years of learning, intelligence, experiments, hard work and best practice are behind HG Leach & Co. – an efficient, innovative and above all effective company.

Operational overview

HG Leach operates across five interrelated fields. The experience gained in each field is applied across the board, ensuring quality, effective operation and best practice across all HG Leach activities.

Quarrying

HG Leach maintains quarrying operations at:

- Tirohia
- Waitawheta
- Matatoki
- Tahuna

Aggregate distribution is handled directly and through the company's 'Rock Shop' in Henderson, Auckland.

Cartage/haulage

- Aggregate distribution fleet
- Specialised solid waste fleet
- Specialised leachate transport tankers

Waste services

- Tirohia Landfill
- Refuse Transfer Station operation

Heavy plant and equipment

- Specialised quarrying and crushing equipment
- Heavy earthmoving plant and equipment
- Solid waste compaction plant
- Solid waste handling equipment

Civil Engineering contracting

- Landfill construction
- Landfill closure works
- Landfill remediation works
- Landfill operations
- Bulk earthworks
- Minor earthworks and drainage

Strong companies come from strong foundations

For more than fifty years, HG Leach has been part of the fabric of Thames Valley life. The small drainage and dragline business that Harry Leach and his sons Merv and Bruce Leach started in 1948 has made a significant contribution to the region by providing:

- commercial services
- employment
- essential primary commodities
- support for non-commercial community activities.

Regional responsibility is complemented by responsibility to the quarrying and contracting industries. HG Leach is a fully paid up member of the:

- New Zealand Contractors Federation
- Aggregate and Quarry Association of New Zealand
- New Zealand Road Transport Federation
- New Zealand Landfill Association
- Waste Management Institute of New Zealand
- Employers and Manufacturers Association.

Responsible corporate citizenship of this type has clear and tangible benefits for HG Leach's clients.

The staff loyalty inspired by the company's strong management and local connections is a key contributing factor to the depth of experience at HG Leach. In the year 2000, 33 full-time staff had together achieved 326 years of service – an outstanding average term of 9.9 years. This experience and knowledge is passed on to HG Leach clients in the form of exceptional professional skills and cost-effective operational practices

Membership of industry bodies ensures frequent peer review and a formal commitment to industry best practice.

Effective management

The right people for the job = the most effective result. HG Leach maintains a company structure that puts the most effective people in the right place.

effective quarrying

On average, a New Zealand family of four creates demand for 32 tonnes of quarried materials a year. HG Leach aims to help meet that need by producing high quality aggregates efficiently, safely and responsibly.

HG Leach Quarries

HG Leach & Company Limited currently owns and operates four quarries, all located within the greater Thames Valley. Tirohia Quarry, Matatoki Quarry, Waitawheta Quarry and Tahuna Quarry are the key sites of a quarrying operation that supplies aggregate for New Zealand's roads, farms, buildings, railways, airports and seaports.

All four quarries are hard rock quarries. Tirohia Quarry, Matatoki Quarry and Waitawheta Quarry are volcanic andesite rock; Tahuna Quarry provides sedimentary greywacke rock.

The company is fortunate to be located in an area that has extensive reserves of aggregates, ensuring ongoing supply for many years to come. To ensure continuity of supply, the company keeps stockpiles of aggregate at all quarries and at the HG Leach 'Rock Shop' in Henderson, Auckland.

Quality is key

All four HG Leach quarries produce premium aggregates with an AA weathering index – the highest possible rating.

All HG Leach premium products are tested for compliance and certified by an independent IANZ-accredited laboratory.

All HG Leach products go through internal Quality Assurance inspection and testing.

All HG Leach roading metals meet or exceed Transit New Zealand specifications.

All product can be produced to specification as required.

To ensure HG Leach is able to consistently produce high quality aggregates, all staff members are trained to industry standards and are supervised by certified and competent quarry managers.

Responsible environmental management

Minimal environmental impact at all levels is a key aim of all HG Leach operations. Good environmental practice is integrated into all aspects of the company's operations as part of sound, long-term planning.

The company is committed to demonstrating excellence in environmental management through an environmentally responsible culture. Minimum requirements include:

- compliance with, as a minimum, all legal and statutory requirements
- applying the principles of best practice, sustainable development of natural resources and continuous improvement
- reporting on environmental performance.

Premium aggregates

The premium aggregates produced by HG Leach are used predominantly in

Concrete production
Sub-divisions
Roading

- roading metals
- sealing chip
- asphaltic concrete
- drainage.

Other grades of aggregate

Not everyone needs – or wants – top quality aggregate. Hard blue metal can be damaging to the feet of valuable dairy cows, whereas a lower grade of aggregate can be just right. HG Leach produces a wide range of alternate-grade aggregates for use in:

Roading

- forestry roading
- drainage metals
- sub-division construction

Environmental maintenance

- riprap is used extensively for riverbank and foreshore protection

Farming

- dairy races
- tanker tracks

Housing

- driveways
- backfill
- foundations.

effective cartage

Effective cartage is more than just moving product from A to B. It's about making best use of schedules, backloads and alternative transport methods, and minimising environmental impact.

Meeting needs – fast

HG Leach & Company Limited has an extensive road fleet for transporting aggregate. Ranging in size from 8 tonnes to 32 tonnes, the fleet is in constant operation across the North Island, moving aggregate from the Thames Valley quarries to projects in Auckland, Tauranga, Hamilton and the Coromandel.

Clients gain significant advantage from the company's efficient fleet practice. While urgent deliveries can be accommodated, they are not usually required thanks to the company's strategic location. Transport schedules to major centres are regular, and backloading is used extensively to ensure efficient transport to these

Finding alternatives

Even the best-managed haulage fleets put pressure on New Zealand's road networks. In order to continue meeting the needs of the dynamic – and ever-expanding – Auckland market in the future, HG Leach has RMA consents to develop a barging transport system based in Kopu. This innovative bulk transportation method will take pressure off North Island roads and improve the company's turnaround time on bulk aggregate orders.

The barge-loading terminal at Kopu will run a direct route up the coast to Auckland. One 1000-tonne barge takes as much aggregate in one trip as 35 truck and trailer loads. As Auckland continues to require greater quantities of aggregate, the positive impact on road traffic over the years will be significant.

The same backloading principles that are used to such effect in the road transport network will be applied to the barging system. Eventually, HG Leach intends bringing dredged marine sand back from Auckland for use in the Coromandel concrete market.

Minimising impact

Even with the barging system in place, road transport will remain essential for the servicing of inland markets. HG Leach takes all possible steps to ensure that the environmental impact of its road fleet is minimised, including:

Backloading

Backloading ensures that vehicles taking up roadspace are being used effectively, not running empty.

Wheel washing

All vehicles leaving the Tirohia Landfill site have their wheels washed to minimise the transfer of dirt and mud.

Maintenance schedule

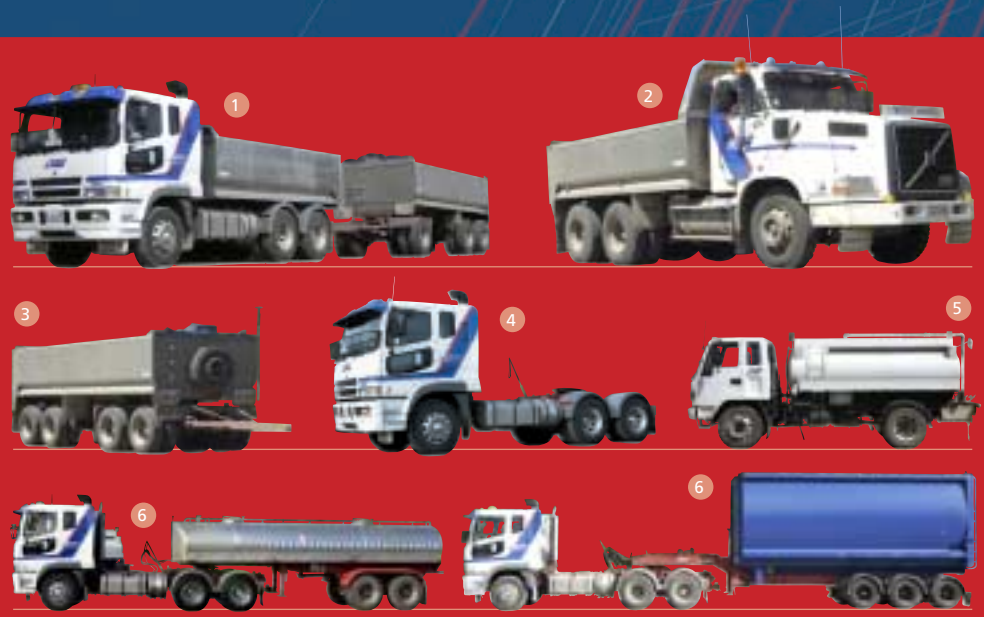
All road vehicles are subject to a rigorous maintenance schedule that keeps them operating as cleanly, efficiently and safely as possible.

Traffic control

Traffic control methods – including signage, noise and dust monitoring and access control – are implemented at every HG Leach site to ensure the safety of both HG Leach drivers and other road users.

Skilled drivers

Every HG Leach transport vehicle is driven by a skilled, highly-trained driver with a licence appropriate to the class of vehicle.



The fleet

Modern, efficient and well-maintained, the HG Leach transport fleet has the right vehicles for a variety of jobs.

	Trucks	Capacity in tonnes	Cubic capacity
1	**Truck and trailer units**		
	Truck and trailer units	29-31	19-21m
2	**Trucks**		
	6-wheeler trucks	10-12	7-8m
	8-wheeler trucks	12-14	9-10m
3	**Aggregate delivery trailers**		
	3 axle trailer	18	11m
	4 axle trailers	20	12m
4	**Tractor units**		
	Tractor units	-	-
5	**Water carts**		
	Water carts	6	6000L
6	**Specialist trailers**		
	Low loader for equipment transport	24	-
	Flat deck trailer	15	-
	Waste semi trailers and hook lift bins	14	44m
	Specialist waste bins	14	20-44m
	Leachate tanker	14	14m

effective waste handling

To be effective, waste handling operations must take into account environmental considerations, community requirements and operational sustainability.

HG Leach Waste Services

HG Leach & Company Limited diversified into solid waste handling and disposal in 1999. The company's waste handling division currently offers two distinct services; Refuse Transfer Station management and Landfill services through the Tirohia Landfill. Both services are operated under strict environmental controls designed to maintain a safe and healthy environment for staff, service users, neighbours and nearby communities.

Tirohia Landfill

The Tirohia Landfill is the first modern landfill facility to effectively service the needs of communities in the Eastern Waikato, Western Bay of Plenty, Thames Valley and Coromandel Peninsula.

The large landfill, designed to meet the needs of these communities for up to 20 years, has reduced the need for environmentally unfriendly small community tips and dumpsites. It has also substantially reduced the expensive practice of transporting waste to remote landfill sites out of the region, bringing economic benefits to local authorities and industries.

The Tirohia Landfill has a number of outstanding features, including:

Ideal location

The Tirohia Landfill site is tucked back on a private road adjacent to HG Leach's Tirohia Quarry. The conjunction of the two sites means that, as the quarry is quarried out, the exhausted pit areas can be reused for landfill.

As HG Leach owns all the surrounding land, noise and odour impact on neighbours is minimal. Any impact is further reduced by heavily planted buffer zones and surrounding pine forests.

Long-life design

Phase A of the landfill, currently in operation, has an expected lifespan of 12 years, based on capacity of 1.2 million cubic metres of waste. Phase B, yet to be consented, will extend this by another 15 years and 1.8 million cubic metres of waste.

Leachate collection

Tirohia Landfill has been designed with a 600mm composite liner made up of geotextile fabric, clay and high density polyethylene, overlaid by a protective sand layer and then a 300mm thick drainage layer. The liner ensures that all leachate drains away to one central

Separate stormwater collection

Stormwater is kept completely separate from leachate at the Tirohia Landfill. Stormwater is channelled directly to a stormwater settling pond, where it can be clarified before being released into water systems. As an added precaution against the mixing of leachate and stormwater, stormwater monitoring takes place every 30 minutes.

Gas disposal

The flammable gas produced by decomposing waste will be vented and burned through controlled flaring.

Planting and erosion protection

More than 11,000 native plants have been planted on the Tirohia Landfill site. The plants cover new earth slopes and protect the banks of the Owhakatina Stream, which drains the area below the quarry and landfill site.

Dust and dirt controls

A wheel wash facility cleans dust and dirt from the wheels of all vehicles exiting the landfill site.

Ongoing monitoring

HG Leach has committed to continued environmental monitoring for up to 30 years after the landfill has closed.

HG Leach profile

effective

RTS management

Our communities produce unprecedented amounts of waste that need to be disposed of or recycled safely. HG Leach builds and manages Refuse Transfer Stations that are modern, sanitary and designed to offer communities a user-friendly waste services interface.

Meeting community needs

HG Leach and Company Limited moved into Refuse Transfer Station management in 1999, as part of the company's diversification into waste handling services.

Like the Tirohia Landfill, HG Leach-managed Refuse Transfer Stations are operated under strict environmental controls designed to minimise their impact on surrounding communities. The emphasis is on providing communities, corporations and local bodies with a safe, cost-effective, convenient option for waste disposal and recycling. Refuse Transfer Stations are particularly effective at promoting public safety associated with waste disposal, because the need for the public to go into the actual dump site is removed.

Specialist disposal = safe disposal

HG Leach and Company Limited manages several Refuse Transfer Stations around the greater Thames Valley, including the Matamata-Piako District Council's Refuse Transfer Stations at Matamata, Morrinsville and Waihou. The company handles all the waste that comes into these Refuse Transfer Stations, including transportation and disposal of the waste at the landfill. A fleet of specialist waste management vehicles is maintained for this purpose.

Skilled Refuse Transfer Station staff are also a key part of the safety equation. Staff members are highly trained in the management of hazardous waste and are sent on regular upskilling courses. Roaming supervisors ensure that standards are being met at all Refuse Transfer Station sites.

Recycling for reuse

As part of its Refuse Transfer Station management service, HG Leach offers a full recycling service for the reduction of waste to landfill, by recycling the following commodities for reuse:

- glass
- paper
- cardboard
- plastic of various grades
- motor cars
- whiteware
- car batteries
- green waste.

Helping to keep communities safe

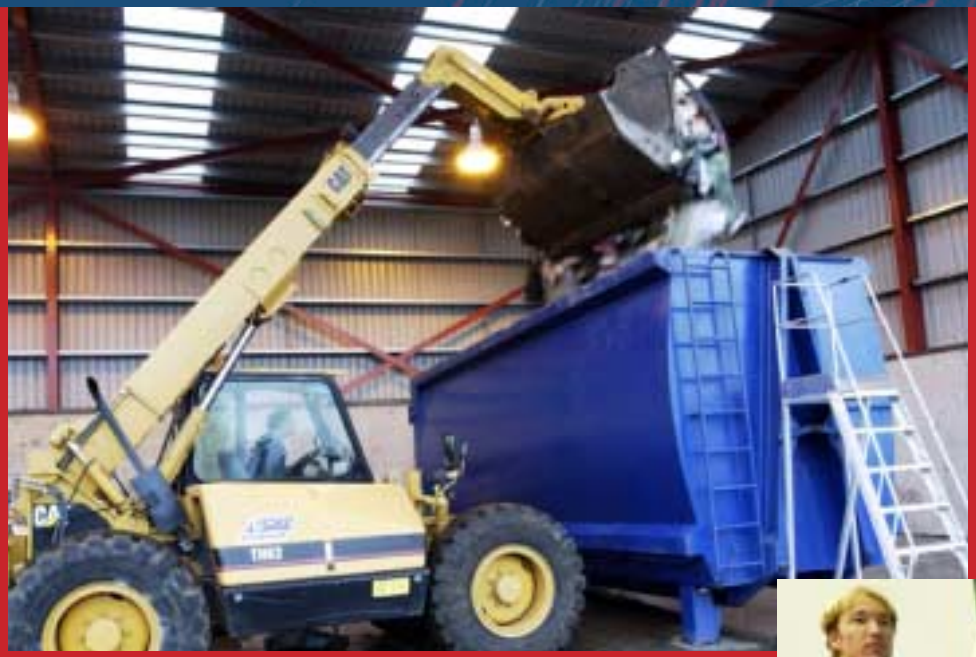
HG Leach Refuse Transfer Stations also offer a service for the collection of small quantities (not commercial volumes) of dangerous goods such as pesticides, paint and chemicals. Offering this service allows homeowners to remove the potential fire and safety risks posed by keeping dangerous substances in their houses and sheds.

The dangerous goods are disposed of safely through Environment Waikato's dangerous goods network to ensure that their potential for environmental damage is minimised.

Keeping track of trends

Keeping track of the amount and types of waste produced by our communities is vital if landfills are to meet the needs of the future.

The sophisticated weighbridges and data tracking systems in place at all HG Leach Refuse Transfer Stations monitor and record the waste and recycling going into the system. This information is passed on to local bodies, who then have the right data to be able to respond to patterns and volumes of community waste disposal and recycling.



effective equipment

Plant and heavy equipment is vital to effective operations. Having the right gear for the job contributes to cost savings, health and safety benefits and increased productivity.

HG Leach equipment

The days when quarrying work was carried out with a shovel and a belt-driven crusher are long gone. Today's quarries and landfill operations require plant and equipment that is technologically advanced, safe and comfortable for operators. Modern, well-maintained equipment not only aids production, it also assists in achieving environmental objectives by minimising noise and maximising output.

HG Leach and Company Limited invests heavily in quality mobile and fixed plant and equipment, including specialised and custom-built equipment as required.

Most equipment is used on-site at HG Leach Quarries and waste sites; however, mobile gear is also used for outside contracting work during periods of low demand in the quarries.

Specialised quarrying and crushing equipment

HG Leach quarries carry heavy-duty quarrying and crushing equipment at all sites, including but not limited to:

- primary crushing plants (fixed and mobile)
- fixed crushing plants, each capable of secondary and tertiary crushing, screening and producing sealing chip.

Heavy earthmoving plant and equipment

Heavy earthmoving equipment is constantly being updated. The range below is a general overview of the type of plant and equipment in use:

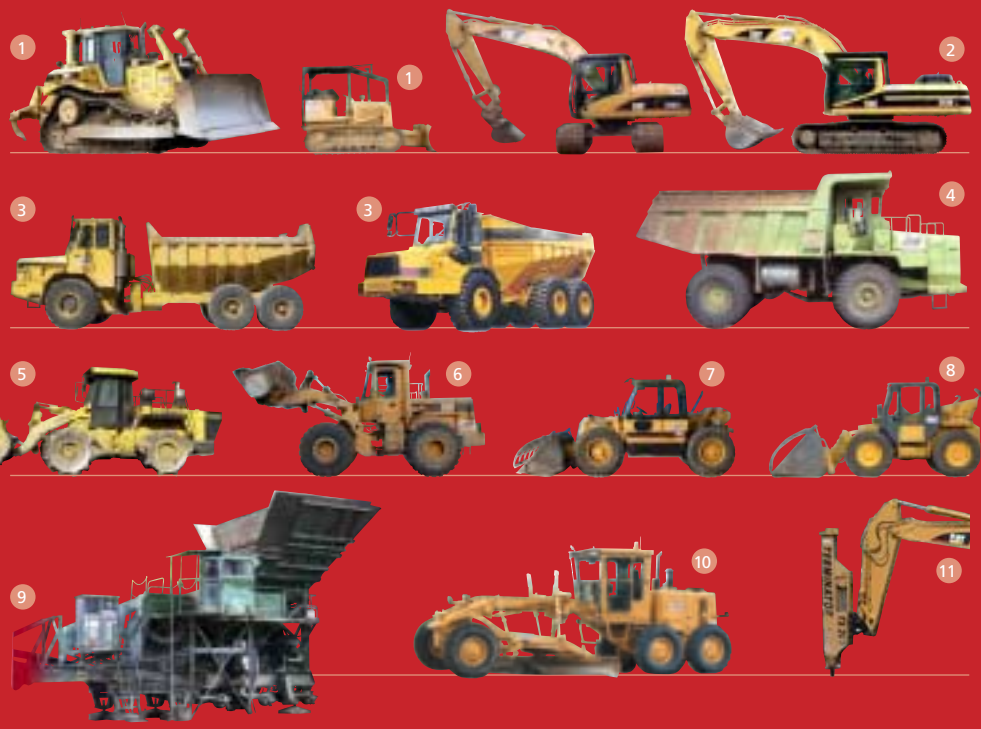
- Cat bulldozers
- Cat hydraulic excavators
- Cat front-end loaders
- Cat motor grader
- Moxy articulated dump trucks
- Terex rigid dump truck
- Bell dump trucks
- Water carts – 6000L
- Terminator rockbreaker
- Utilities – 1 tonne
- Road trucks
- Road trailers
- Hook lift trailer and bins
- Low loader.

Specialised waste handling equipment

- Cat telehandlers – telescopic loaders with waste handling configurations, customised for HG Leach.
- JCB telehandlers – telescopic loaders with waste handling configurations, customised for HG Leach.
- Hanomag refuse compactors.

On-site service and workshop facilities

The HG Leach heavy equipment fleet is taken care of by dedicated maintenance staff based at the Tirohia site. To ensure all equipment is running at optimum capacity, the extensive workshop facilities are staffed by qualified, certified diesel mechanics and certified fitter welders, plus lubrication staff.



		kW	Other
1	**Bulldozers**		
	Cat D6 R XL Bulldozer.	130	Operating weight 19 tonnes.
	Cat D3 B Bulldozer.	52	Operating weight 7 tonnes.
2	**Hydraulic excavators**		
	Cat 330 BL Hydraulic excavator.	165	Operating weight 33 tonnes.
	Cat 320 CL Hydraulic excavator.	96	Operating weight 20 tonnes.
	Cat 235 B Hydraulic excavator.	180	Operating weight 40 tonnes.
3	**Articulated dump trucks**		
	Moxy ADT MT 30 S articulated dump trucks.	214	Operating weight 30 tonnes / 6 x 6.
	Moxy ADT MT 30 R articulated dump trucks.	214	Operating weight 30 tonnes / 6 x 6.
	Bell B16 B articulated dump truck.	120	10 m^3 capacity / 6 x 2.
4	**Rigid dump truck**		
	Terex 3305 B rigid dump truck	242	-
5	**Refuse compactor**		
	Hanomag CL 240 refuse compactor.	170	Operating weight 24.5 tonnes.

		kW	Other
6	**Front end loaders**		
	Cat 966 front end loader.	175	Bucket capacity 4.5 m^3.
	Cat 950 front end loader.	134	Bucket capacity 3.5 m^3.
	Cat 930 front end loader.	75	Bucket capacity 2 m^3.
	Cat 962 G front end loader.	149	Bucket capacity 4.0 m^3.
7	**Telehandlers**		
	Cat TS 62 telehandler telescopic loader.	60	Operating weight 7 tonnes / Waste handling configuration.
8	JCB telehandler telescopic loader.	60	Operating weight 7 tonnes / Waste handling configuration.
9	**Crushing plant**		
	Shenyang mobile primary crushing plant.	-	36" x 24" / complete.
10	**Motor graders**		
	Cat 120 G motor grader.	104	Operating weight 12 tonnes.
11	**Rock breaking equipment**		
	Rocktec Terminator TX 200 rock breaker.		

effective contracting

Contracting is all about skill – and the ability to adapt to whatever challenges a site throws out. Innovation, flexibility and environmental sensitivity are vital if a contracting company is to be effective.

A history of effective contracting

HG Leach and Company moved into contracting as a natural adjunct to its quarrying activities. Quarrying and earthworks have a logical fit, with skills learned from one discipline constantly being applied to the other.

HG Leach currently concentrates its contracting efforts on waste industry projects, such as:

- landfill construction
- landfill closure works
- landfill remediation works
- landfill operations.

These types of waste industry sites present a range of challenges and hazards that require specialist knowledge. The company is also able to undertake:

- bulk earthworks
- site rehabilitation works
- minor earthworks and drainage
- quarry stripping.

Making the most of knowledge

The diversification of HG Leach into the solid waste business in 1999 coincided with the closure of numerous dumps and small landfills in the region. The introduction of the RMA (Resource Management Act) required all local Councils to either upgrade or close many of the small disposal sites and to engineer these to sufficient standards to ensure environmental compliance.

This significant change offered HG Leach the opportunity to further use its skills, knowledge and resource base to make the most of contracting opportunities in the waste industry.

HG Leach has used its skills to undertake contracting works in the following areas:

- landfill operations at Matamata Landfill until its closure in December 2001
- closure and capping works at the Cambridge, Athenree, Matamata, Morrinsville and Tirau Landfills for various District Councils
- environmental protection works and leachate cut-off systems at Cambridge and Athenree Landfills
- construction of the Tirohia Landfill, which is a state of the art modern landfill built to the highest specifications including composite lining, leachate and gas collection systems.

Safe operation = effective operation

HG Leach has specific experience in dealing with the challenges associated with contracting in the waste industry. Hazards are found in this industry which make specialist contracting vital to a successful outcome. These hazards can include:

- high depth of refuse requiring rework
- unstable underfoot conditions resulting in plant or vehicles overturning
- safety issues working near heavy plant and machinery
- release of landfill gases - especially methane
- contaminated water / leachate
- fire risk working on a landfill
- dangerous materials in the landfill which can cause injury
- odour
- vermin
- hepatitis and tetanus risks
- excavation in water
- excavation greater than 1.5 metres deep – OSH notification.

The company incorporates its Health and Safety System into all works, and each site is managed according to the Health and Safety Plan to ensure a safe work place.

Keeping it clean

Environmental responsibility is at the forefront of every HG Leach operation, including contracting. To ensure all HG Leach contracting works meet environmental requirements, the company also undertakes all its contracting works in compliance with:

- the Resource Management Act
- the Conditions of Consent for the site
- contract specifications.

The company prides itself on effective project management and quality assurance procedures, ensuring the environmental protections that clients seek are achieved on time and to budget.

LEACH profile