

The expertise, equipment and capability to take on any job, anywhere.



Meet Bessy. She's a beauty!

GeoCivil's most powerful team member would have to be big Bessy. With a 20 ton push capacity and a 3.2 ton mass, GeoCivil's CPT rig 'Bessy' gets the job done.

She's big, she's bold, but she's also extremely delicate – Bessy's probe has three independent sensors that are able to measure the density of the ground beneath her, the particle types contained in the soil, and the existing ground water pressure.

GeoCivil have been putting her to good use across New Zealand. Bessy also has a baby sister (or should that be brother?) called 'Tiny'.

While he may fit his name when parked next to Bessy, don't think this outstanding rig is lesser in any other sense!

GeoCivil's smaller CPT rig still offers the full range of cone penetration testing, with the added benefit of being able to fit in smaller spaces, in tighter areas, or in more delicate locations. Both rigs are specifically engineered to combine both compact design and ease of setup, offering rapid setup times and saving time and expense for GeoCivil's clients.

Cutting-edge technology and expert technicians – a winning combination!



**ACID SOIL SCREENING?
CPT INVESTIGATIONS?
GEOTECHNICAL TESTING?**

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Hopua te Nihotetea Dam

Designed to reduce flooding in Whangarei's CBD, the Hopua te Nihotetea Detention Dam – also known as the Kotuku Dam – is an approximately \$11 million project that began in 2014 and was completed in December 2015.

The 18-metre high dam will hold up to 1.27 million cubic meters of floodwater, slowly releasing this stored water in a controlled manner to reduce any flooding in downtown Whangarei. This large-scale project required an absolute measurement of ground stability and integrity prior to construction – and GeoCivil had the expertise and specialised equipment needed.

The work completed by their experienced geotechnical team included soil profile testing, soil composition and density

assessments, strength properties of the types of soil at the dam site, and rigorous testing of compaction to ensure the site would manage the large volume of water.

In an interesting twist of events, the construction team uncovered an unexpected soil type while testing the dam site, and an urgent analysis was required to ensure the project could still proceed. Luckily, in this case, the soil was immediately identified, tested, analysed and – due to the test results – ultimately removed. Had the substandard ground layer NOT been removed, the effects could have been disastrous.

That's just the nature of the job for GeoCivil – avoiding emergencies through intense testing and analysis.



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