Horahora Power Station Trip Report: 11th May 2011

Jamie Obern

Just over 100 years ago work started on New Zealand's first hydro-electric power station. Sixty four years ago the station disappeared, submerged by the rising waters which had been dammed for a bigger and more modern hydro-electric station built further down the river. Eighteen months ago a small group of us went searching for this largely forgotten piece of NZ history and although the diving wasn't very successful we knew we had got close. Finally yesterday we got the break-through – during 90 minutes underwater, two of us got inside some of the surviving buildings with a video camera. As the saying goes, good things are worth waiting for – well we've waited and waited and this was definitely good! (For more on the history and details of our first dive attempt see our trip report from 21st October 2009.)

Before I talk in full about the dive I should first explain a little of the logistics. This is not a dive-site you can simply drive up to, jump in and start exploring. Firstly you need a boat, otherwise you'll be exhausted by the walk from the nearest parking spot. (Unless you have willing sherpas.) Then ideally you need someone on the spot everyday to monitor water clarity and call when conditions are good. Next you need divers capable of operating in very low visibility conditions, in an overhead environment, using lines and a video camera and who can take a day out of their schedules at short notice. Finally if you really want an idea of what you are exploring you need a decent side scan sonar. To get all of these pieces in place is a big ask – but with the enthusiasm and motivation of Mike from Karapiro cruises we had everything. As Matt and I drove down through the rain on Wednesday morning we were pretty excited.

Waiting for us when we arrived was Mike and also another smaller boat, skippered by Campbell, which had the good sonar. We dumped our gear and headed off up the river, glad the Auckland rain had not followed us down. As we approached the site we slowed and watched the sonar in anticipation – if you look at the picture below hopefully you'll get some idea of the buzz we felt.

What the power station looked like in its prime

What the station now looks like.

When you see sonar images like these you know you've hit the jackpot – not only can you see there are buildings down there, but you can see windows, doorways and even where the silt has piled up. Matt and I needed very little encouragement to get into our suits and start exploring.

Diving on a site like this takes a bit of planning in order to remain safe. The buildings are big and the visibility is restricted – an unwary diver could easily swim into a building and not realise until he tried to ascend – not something we wanted to experience ourselves. Therefore the first thing we did was to set up an ascent line. We dropped in with the ascent line and attached it to the first piece of building we could find; whatever happened now we knew we could always ascend from this point. From here we tied in our exploration line and set off down a slope of mixed sand and silt until we hit metal work. Continuing forward we found concrete, followed by a window – bingo. In such restricted visibility it's hard to know whether you are dragging your line into 'line traps', so we tied off wherever possible. We followed along the wall noting several other windows and behind them rooms full of debris washed down the lake over the last 64 years. Eventually we found a room more open than the others – in we went.

It may not look much, but just under here is an entire power station.

I had thought it was dark outside the building, but once inside it was truly dark. Our lights allowed us to pick out features in the gloom and we ducked under and around old power cables and wires, eventually exciting through a window on the other side of the building. We dropped down a level and found several large openings, possibly for vehicles and swam through another room back to the side of the building we started on. Drifting upwards we found what looked like the roof – certainly a very distinctive shape – it was time to retrace our steps and go back to the old pictures to try and pinpoint where we were. We left the line in place and carefully retraced our steps. We had been in the water for a little over 30 minutes.

Having studied the pictures we had a good idea of where we thought we'd been and set off with high expectations for our second dive. The first part of the dive would be the video work, trying to get some usable footage to show others what we'd seen. I definitely wanted to get pictures of the windows and larger openings, plus some of the cabling and old electrical fittings. However in the very low light the camera struggled to focus properly, making filming difficult. We did manage to get some usable shots, but not as much as we would have liked.

For the second part of the dive we continued exploring, finding more electrical fittings, more rooms, some wooden steps and what appeared to be the roof area – minus the roofing materials.

This is the only remnants visible from the surface.

All that remains are the trusses. Of course we could be mistaken – after 60minutes in the water we got thoroughly lost and didn't know where we were – exactly why we had a line.

So where does this leave us? Mike has dived the site once, without a good light, with no line and not to any great depth, however he found windows with glass in them. On the sonar Mike and Campbell have also seen a big toothed wheel or cog. We also know that in the 1960's some salvage work was done to extract the copper from the turbines and more salvage was done again in the mid 70's – although unsuccessfully. Since then we believe the site has remained undisturbed. We've also found out that another local has a full scale model of the site, which we hope to get a look at in order to plan further dives. If we can combine the model with some more sonar scans in order to properly place the silt and debris mounds we should have a good chance of properly mapping the site – as long as we get ok visibility. Which means what we need now are keen divers, with an interest in history and good comfort levels in very dark water. If this is you then please let us know. Mike is certainly very keen to keep moving forward so hopefully this is a good project for the winter. Whatever happens you will be able to read about it here.