

**BEFORE THE COMMISSIONERS APPOINTED ON BEHALF
OF THE OTAGO REGIONAL COUNCIL, CENTRAL OTAGO DISTRICT
COUNCIL AND QUEENSTOWN LAKES DISTRICT COUNCIL**

Under	The Resource Management Act 1991 (the Act)
In the Matter	of an application for resource consents for Suction Dredge Mining on the Clutha River/ Mata Au
Between	COLD GOLD CLUTHA LIMITED Applicant
And	OTAGO REGIONAL COUNCIL (RM22.434) QUEENSTOWN LAKES DISTRICT COUNCIL (RM220834) CENTRAL OTAGO DISTRICT COUNCIL (RC220255) Local Authorities

SUMMARY OF EVIDENCE OF PETER FRASER HALL



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Introduction

1. I would briefly like to address the following:
 - (a) The role mining plays in modern society and the contribution its makes to the community.
 - (b) the worrying allegations made in some submitters evidence.

Gold's purpose

2. There has been criticism that our submission does not establish the social and community benefits which we have perhaps incorrectly assumed was widely understood.
3. Gold has a particular role and has become ubiquitous in our lives and is often subliminal. If you use or own a cell phone, a computer, a TV or almost any piece of equipment that contains electronics, then you benefit from it. If you buy or wear jewellery, if you are married and wear a ring, you enjoy dental and health care or you took a flight on an aircraft, then you benefit from it. It is used in fine arts and signwriting and to adorn religious icons to highlight their significance. It formed the basis of our financial system and is traded as a global commodity. It is stockpiled by reserve banks around the world to manage fiscal risk and objectives. It is even possible that some component of your Kiwisaver investment fund invests in gold.
4. As we move toward a low-carbon economy, gold will have a role to play in new technologies. I quote the Rt Hon Helen Clark in her speech at the 2022 International Mining & Resources Conference in Sydney:¹

“As is well known, the mining industry has a very important role to play in the shift to net-zero carbon emissions. The technologies for a sustainable energy future – such as solar

¹ Helen Clark, Extractive Industries Transparency Initiative Chair “Why mining’s good governance is a critical element of the energy transition” (International Mining and Resources Conference 2022, Sydney, Australia, 2 November 2022).

panels, wind turbines and electric vehicles – all rely heavily on minerals.

(...) But it will be a challenge to have sufficient mineral supply to be able to deploy low-carbon technologies at the scale and pace required for climate action, while at the same time protecting the rights and interests of stakeholders along the mineral value chain.

Action is needed to turn that challenge into an opportunity – the opportunity to grow the mining sector to support the energy transition, while ensuring both good governance and sustainable development in minerals-producing countries.

Most low-carbon technologies use far more minerals than do their fossil fuel-based equivalents. A typical electric car requires six times the mineral inputs of its conventional equivalent, and an onshore wind farm requires nine times more mineral resources than a gas-fired plant, according to the International Energy Agency.

As a result, coming decades are likely to see strong demand growth for certain minerals. Again, according to the IEA, limiting global warming to below 2°C could require a fourfold increase in the supply of minerals for clean energy technologies within the next two decades. The more ambitious the world is in its decarbonisation efforts, the more mining it will need.”

5. Cold Gold Clutha is a 100% New Zealand owned business. At a community level, we employ 6 permanent full-time staff. We support local businesses by engaging engineering suppliers and maintenance contractors who, in turn, spend locally. Currently, two staff members are local to the area, as more than likely, will be any future employees.
6. Gold that the dredge produces is sold to a New Zealand based business. They refine it and make extrusions predominantly for the jewellery sector but they also produce bullion. The Fine Jewellery sector in NZ was worth \$537M in 2022 and employs over 2000 people.² 2.0% of the gross gold we produce goes to the Crown as a royalty.

² IBIS World “Watch and Jewellery Retailing in New Zealand – Market Size, Industry Analysis, Trends and Forecasts (2023-2028) (February 2023) <www.ibisworld.com>

OPERATIONAL MATTERS

7. I want to take this opportunity to address some of the matters that have been raised in the evidence filed on behalf of Submitters, particularly operational matters discussed by Kim Fogelberg, Reg Hall and Oliver Moon.
8. I can confirm that Mr Hall and Mr Moon are both former employees. Mr Hall's characterisation of his departure from us is correct. During his time with us Reg worked as both a Skipper & Operator.
9. Mr Moon summarily quit following a relatively short stint with us. He did not work out his notice period. There were a number of challenges during the course of his employment where he clashed with other staff. This included Mr Webber. I understand this was on the basis that Mr Moon was living in Luggate and we had not yet relocated the dredge to the Upper Clutha which he had expected. He did not advise me that the reason for him quitting was associated with the operation of the dredge, or the toilets in particular. Nor was this a matter that he previously raised in his submission or other complaints he has made to the Council.

Toilet

10. I have to confess to being horrified at the allegations in the evidence of Mr Hall and Mr Moon. I agree that if that is what some of our staff have been doing that is completely unacceptable. It is not the method that is intended or promoted by the company or myself as a Director.
11. I have raised the issue with our current crew who do not accept that is what has been occurring. I have also contacted Ricky who Mr Moon refers to and he confirmed, both verbally and in writing, that such a practice was not employed during his 3.5 year tenure with us.
12. In Reg's case, he was the skipper of the dredge for some of the time he worked with us and it would have been his responsibility to ensure the cassette was emptied correctly. At no time did he make me aware of a practice of emptying the cassette into the river. If he had I would

have addressed it immediately. Such a practice by staff would be a contravention of our employment agreement.

13. It is correct that the dredge is fitted with a cassette toilet for use by staff when on board the dredge. They are the same type of cassette toilets commonly used in large self-contained campervans or caravans.
14. We have two toilet cassettes available. The purpose of which is to allow an empty one to be fitted when a used one requires emptying. They have a capacity of 20L and typically require emptying 1-2 times per week. The practice is to remove the cassette and take it to a dump station – there is one available in Lawrence, or Roxburgh. If we begin to operate in the Upper Clutha there are dump stations at Cromwell, Wanaka and Hawea.
15. As the operational manager at the time, I personally, emptied the cassettes for 9 years. I would take the cassette home and empty it into the dump station on the way. While a straightforward task, it is not particularly pleasant, and I never asked the crew to do this.
16. To provide greater certainty about this we would be happy to offer a condition requiring a log of cassette disposal to be kept as proof that this is occurring.

Pipe Liner

17. Mr Moon's description of the Pipe liner contains numerous inaccuracies that I wish to correct.
18. He is correct that a HDPE pipe liner the inside of the main dredge pipe. It is similar to the type of large HDPE pipes used for sewage pipelines etc. Anyone that has driven from Milton to Waihola recently will have seen them lying on the ground where the Council is installing new 3 waters infrastructure.

19. The pipe is 25mm thick and is rotated (by approximately a 3rd of the turn) every 500-600 hours (not 100 hours as suggested by Mr Moon). We therefore get 1500-1800 hours out of each pipe. The pipes do get worn in places but not the extent described by Mr Moon. It is not normal for them to wear completely through, although that has happened in the early days of the dredge due to high pressure water being directed incorrectly. Modifications were made to prevent this re-occurring.
20. Plastic pipes of this nature are used in suction dredging operations, here and overseas. HDPE strikes the right balance between weight, flexibility and durability for the purpose. Our system is unique to a degree, but the use of HDPE pipes is not.
21. We did investigate using other materials in the pipe. Steel is less resilient and is much more difficult to replace due to the weight and inflexibility.

Moving the dredge

22. The video referred to in the evidence of Kim Fogelberg shows the dredge being moved down the River. I would like to explain this video, as it does not reflect our current practice. I was on the dredge the day this manoeuvre took place, although I was not the skipper. On the day I did express my concerns about the approach being taken, but was required to defer to the Skipper. This manoeuvre was the first time that we relocated the dredge following its launch in 2012. As I mentioned in my evidence in chief, we did have quite a steep learning curve when we first commenced operations. How to best move the dredge is one of the areas where we have refined our procedures a lot.
23. In the video the dredge is travelling forwards down the River. This means that in order for the engines to gain traction in the water to drive the vessel it needs to be moving faster than the flow of the water. That had obvious consequences for how fast it needed to

travel and also created issues with manoeuvrability which are readily apparent from the video. I can confirm that there were some pretty frayed nerves on board that day.

24. Since the day that video was taken we only manoeuvre the dredge backwards. This means that it moves more slowly because we are working the engines against the current. This allows us to maintain full control over both speed and trajectory. Our manoeuvrers on the river are now much more mundane than they appear in the video.
25. We also have the pilot boat in attendance during all movement, they work either upstream or downstream of the dredge to assist with guidance and provide warning to other water users if necessary.

Hydraulics, Oil and Engine

26. It is correct that there are no waste oil tanks on the dredge. That is largely a function of the boat's size. It is not big enough to require them. The design was completed by a Naval Architect and it has obtained all the necessary certifications. We took the expert advice we were given in relation to these matters.
27. The absence of waste tanks does not mean that waste on board is not managed. There are waste oil containers that are used to capture waste products during maintenance processes etc. These containers are emptied at appropriate disposal sites (typically taken to a Dunedin Contractor where it is collected by a waste oil disposal company from Christchurch). We have desiccant pads on board to clean any of the more minor leaks such as from the anchor winch. The hydraulic room that contains the majority of the hydraulic equipment is fully bunded ensuring any leaks are fully contained. The image of the floor grate provided by Mr Moon in his submission is located 60mm above the floor level. Therefore, the room would need to overtop the bund to that depth for anything to escape from there.

28. We have a catch-all tray at the filling port where refuelling takes place at the dredge.
29. The Detroit Engines have been raised as inappropriate. I discussed this to a degree in my evidence in chief. Once again, we took the advice of our naval architect in utilising these engines. They were one of a few options in the power range that we required, and due to their relatively low usage they were considered appropriate. It is correct that they were reconditioned but that is a common process that effectively restores them to near new condition.
30. It is correct that the Detroit engine went out of manufacture in 1995, which was associated with the strict air emissions standards imposed in the United States to address air quality concerns that had arisen at the time.³ They fully comply with applicable regulations here in New Zealand.

Fuel Transfer

31. Mr Hall provides a photo of the current fuel transfer location on Clutha River indicating that he made a complaint regarding it to Otago Regional Council's pollution hotline. I presume this is because the pipe is in the water.
32. I can confirm that the photo is of the current fuel transfer location we are using and the arrangement is reasonably typical. The stretch of the River we are working in does rise and fall reasonably significantly over short periods of time due to the operation of the Hydro Dams. Whilst I can understand why Reg might have some concerns about what is pictured it is important to note the following:
 - (a) There are two valves along the pipeline (one at the nozzle and one half-way along).

³ The Clean Air Act 1970 requires the Environmental Protection Agency to create emissions standards for heavy duty diesel engines. The 1990 amendments to the Clean Air Act were designed to curb urban air pollution and air emissions.

- (b) There is also a shut off valve at the fuel tank itself.
 - (c) Fuel cannot be siphoned through this pipe, it must be pumped.
 - (d) The pump is located at the fuel tank which is on private property. The pump itself is contained within a locked box.
 - (e) This set up and our procedures have been reviewed by both Maritime New Zealand and Otago Regional Council previously with no concerns raised.
 - (f) We have never had any issues with tampering or theft. We also select locations that are well concealed from the water. Most people would pass without noticing it – you would typically need to know it was there or be looking for it.
 - (g) As mentioned in my evidence in chief all the necessary spill kits are held on site and during refuelling operations as required by our Maritime Transport Operation Plan.
33. I am confident that the practices that we are adopting are sufficient to manage the risks associated with refuelling and are well within the standards required by the various regulatory bodies we need to achieve compliance with. Having said that, and having reflected on the photo provided by Mr Hall I can understand why someone may see that and have concerns, particularly if they are not familiar with the various layers of safety systems that are in place.
34. In light of that we are going to include within our operating procedures, that the hose be pulled back at least 5m from the shore when not in use.

River Safety Concerns

35. The last thing I want to discuss is our anchoring system. The system uses two anchors set apart and the anchor warps are crossed. This provides good stability to the dredge and does not necessitate the use of lateral wires or stern anchors as was the case when Mr Hall

worked on board over a decade ago. I disagree that this system poses a significant risk.

36. Maritime NZ audit and ORC Compliance along with ORC Harbour Master recently have reviewed this and found it to be low risk. We actively monitor and assess any anchor warp backing lines. We have accepted the condition requested by the QLDC harbour master to maintain exposed anchor warps within the beam of the dredge. We are confident we can achieve compliance with this requirement but are also actively considering what changes can be made to the dredge to make it easier.
37. We anticipate on the upper clutha section of the river that we will need to adapt our operations a bit due to its different characteristics, higher incidence of other water users etc. We expect that we will need to work shorter lengths before repositioning the dredge anchors again, for example. This will allow us to maintain more control over the dredge and manage the lines to reduce their risk to other water users.
38. We would welcome being made aware of any planned commercial raft/kayaking trips or races by the tour or event operators. This would allow us to co-ordinate with these operators especially for large or inexperienced groups.

Peter Hall

Cold Gold Clutha Limited.