

# Project Martha Community Meeting

Thursday 10 September 2020

The following is a record of the Project Martha community meeting held at 3pm on 10 September 2020. Where possible, we have tried to capture individual contributions at the meeting but these do not purport to be verbatim notes.

## Welcome

Tim Clarke introduced himself (independent facilitator) and Louise (independent minute taker) and welcomed everyone to the 3<sup>rd</sup> Project Martha meeting, and said that the last meeting was in February at the beginning of this year.

Elva Douglas said: Yes, we were here for that, 22 February.

Tim explained that the purpose of the meeting is to provide information about the Martha project and an opportunity for people to ask questions, which will be answered either during the meeting or followed up afterwards.

Tim said: The meeting is being recorded and that recording can be accessed by a link that is emailed out to people. If anyone has a question or a comment please give us your name first and then ask the question and we'll make sure that the answers get back to you. If there are answers that are available here today we'll answer those, if they're not then we can include them in the minutes. The recording of the meeting and the minutes are emailed out and are available on the [www.waihigold.co.nz](http://www.waihigold.co.nz) website.

Jeannine Wiki said: We also drop a copy off to Hauraki District Council for those who don't want them emailed.

*(Everyone was asked to introduce themselves – see attendance list at the end of these minutes.)*

Leigh Robcke said: I work at Hauraki District Council. My role is two-fold. One part of it is making sure that compliance matters are dealt with where there is an existing consent and making sure that the relevant reports and information are available as per the conditions of the consent. The second part is more forward-looking when there are projects that are being applied for and making sure the council has got the right people involved to assess those projects through the consent process.

Jol Jardine said: I'm the Project Manager for the Martha development, the underground work, so I can answer any questions or concerns you have in a technical sense.

Russell Squire said: I'm the Environmental Advisor on site so I tend to do all the monitoring and supply Leigh with the reports that we are required to submit. I do a fair bit of the monitoring of the way people are affected.

Kim Calderwood said: I'm the External Affairs and Social Performance Manager at Waihi. Donna, Jeannine and I are on the same team together so we work across operations.

Donna Fisher said: She's our boss.

Kim said: I like to think we work together.

Jeannine said: I'm Jeannine from Oceana Gold.

Donna said: Everyone probably knows me anyway but I'm the company's Liaison Officer and I'm going to do the presentation today.

# Project Martha

## Purpose of meeting

Under Condition 99 of the Project Martha consents we are required to hold community meetings quarterly during the first year of mining activities provided for under this consent, and six-monthly thereafter.

- a) Present information from the preceding six months on the following:
  - i. A description of the mining activities provided for under this consent that have been undertaken;
  - ii. A summary of relevant environmental results;
  - iii. Progress with the IRP property purchase programme;
  - iv. Progress on any matters raised at the preceding meeting;
- b) Receive feedback from the meeting attendees on the consent holder's activities and progress on the matters listed above.

## Purpose of meeting

Donna said: As you know under Condition 99 of the Project Martha consents we have these meetings three-monthly but due to Covid we had to delay the last two meetings, so it's good that we could hold this today.

# Project Martha

## Outline

- ▶ **PROJECT**
- ▶ **ENVIRONMENT**
- ▶ **SOCIAL/COMMUNITY**
- ▶ **PROJECT QUATTRO**

## Overview

Donna said: This is a bit of an outline of what we're going to talk about – a little bit about the project, some environment slides which Russell's going to present, a bit of social and community stuff and just a little bit of an overview of the new announcement we made of Project Quattro.

## Project Martha



Donna said: This is Project Martha as it is today. So, you would have had that on the back of your Martha Matters. Now, on that note, is everyone receiving their Martha Matters?

*(Everybody nodded.)*

Donna said: That's good because we've had a couple of people say they weren't (receiving it) so I just thought I'd check that. So, the yellow (on the slide above) is where we've already been. We've been very busy. This is Correnso on this side, this is Trio and obviously this is part of Project Martha coming in under the pit. So, we've come underneath the rugby club now, we're just here, and those are the blasts that you're feeling in the morning Lee, or you're hearing. We hear them at the office too at 7am, so we're not feeling them either we're just hearing them. Like you say they are audible.

Lee Anderson said: They do vary, I guess it's where you are. Sometimes they're really relatively quite loud. And other ones you're lying in bed there ... because I'm lazy ... at 7 in the morning, and they're really quite faint.

Donna said: The ones under the rugby club are probably the ones that are louder for you because you're living just above. Is anyone else hearing them? Are you hearing them Liz or Raelene?

Raelene said: I haven't been sure but I have wondered.

Donna said: If it's just after 7am that will be what it is.

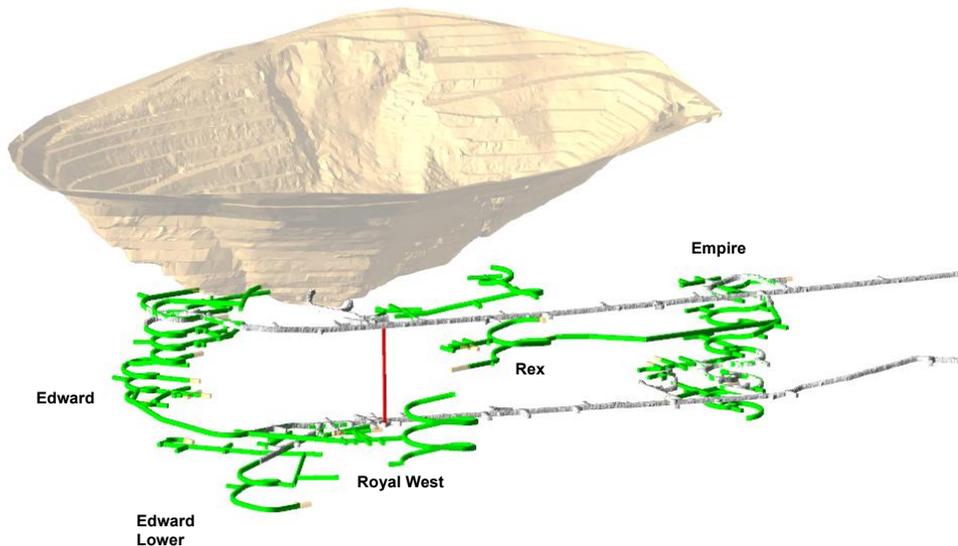
Heather Ross said: I've been waking up at 7 o'clock.

Donna said: Well maybe you're hearing those and just not realising.

Heather said: Yes I might be, I don't know, I don't think so.

Donna said: Well, that's good.

## Project Martha at the end of 2020



Donna said: This is just another way of looking at that map, it's a 3D image of that. So, this is the rugby club here, the workings are there.

Heather said: They've done quite a bit then.

Jol said: That probably shows a bit more than where we're at at the moment. In Rex, at the moment, we've come off what we call the 920 level, the upper level, and we're about here. We're just starting to do this ramp-up and ramp-down, that's the bit that's under the rugby club. It's on an angle so it looks out. This bit here's actually more under the pit and that's what we call our Empire West. The Empire up and down, not all that's developed yet we're just coming up and down into those. This bit here, the Royal West, we're just in this area here. We haven't started these up and downs very much yet. Edward Lower here, out to there.

Heather said: Where's the Royal West?

Jol said: Can we go to the previous slide? That's the Rex we're talking about, looking straight down. You can see Empire West there pretty well. The yellow is what we've actually done so far and you can see how on that other one the green was a lot more. We're just coming up and down here and you can see that's under the edge of the pit, just around a bit, very close to the pumphouse. See the pumphouse there? So, that gives you an idea. The Edward stuff is around this western end of the pit under the pit there. We've just taken this drive out and poked our nose out into the pit and stopped. We've covered it over because we want to keep our ventilation a certain way. We're doing some work at the moment and in the next month or so we'll open that through the pit, similar to what we do here, we'll probably let some air out of the mine through that for a little while. In the long-term the air gets drawn in there to our workings.

Tim said: So Jol, just for Lou's benefit, that's heading up around the side of the pit in a north-easterly direction?

Jol said: Yes, that yellow (on slide 4) is actually mined now and that's the end. You can see how it stops there, that's where it actually breaks through into the wall of the pit on that ramp. This one here is similar, it's a bit hard to see in this picture because the photo's a bit different, but that one is our breakthrough, that's been there for 12-15 months. We actually source quite a bit of air from this part of the mine at the moment. We've got another exhaust over here on Union Hill. In this area here you can see there's a little fork. This fork here will come out into the pit later on and we've put in a raised bore there to join up this top drive, the 920 drive and the lower 800 drive. We've got an internal ventilation shaft underground which we've concrete-lined and we are planning to put fans in there for the long-term mine plan to get enough air through the mine.

Liz Cannell said: So, that one that goes up slightly north-east, do you backfill it as you come out?

Jol said: This tunnel is to let air go in and out of the mine. It's not what we call a stope, there's no gold in that part. At the moment what you see here, nearly all of this development and these tunnels, is to get access to the mine. We are just starting to do the first ore drives in the ore itself but early next year is when we really get into that ore drive, when we start pulling the gold out and that's why we've shut the mill down for a while.

Heather said: Have you got any indication, down here in the new part, of gold being there?

Jol said: We're doing a lot of drilling. Three or four drills underground at the moment, drilling all the time and ongoing as we build up our plan. I think Jeannine has slides of what the overall plan looks like, and that's our best model at the moment. We're still doing a lot of drilling to see exactly which areas we can and can't take.

Tim said: Do you have a timeframe of when that will be crystallised in terms of the mine plan?

Jol said: We do it in stages. In this next stage we will increase our level of confidence in those areas, probably the first and second quarter next year for the upper parts, and then keep going.

Raelene said: So, you're having ventilation shafts over here are you?

Jol said: No, all the ventilation is internal. The two openings we've got now, one there goes into the pit, that's the first one we've had open for 18 months and that's our main ventilation outlet. We have four fans that blow out that now, so there's about half the air coming through that and half over here from the total mine.

Donna said: That's our health and safety thing for you isn't it?

Jol said: We have minimum requirements that we have to meet. There are a number of reasons we ventilate, for blast fumes, for temperature and for the diesel fumes because we've got equipment under there.

Raelene said: So, the one in the pits is going now?

Jol said: Correct, it has been going while we've been doing all this work. This is a fairly new one and as I said we've blocked it off at the moment and we'll open it in a month and discharge out of it for six or nine months. Then we'll turn that around and it will become an intake when we set more things up here and it takes fresh air in. It's about balancing that air flow in and out of the mine. So, to answer your question, no new shafts are currently planned through there, potentially later on there might be something to do with backfill here but we haven't cemented that by any stretch of the imagination yet.

Lee said: In the next photo I assume that red line is your rise bore?

Jol said: Correct, that was a 4.5m diameter vertical shaft. We got a special machine into the country, we drilled a small hole down and then we put a big 4.5m diameter reamer head up, and then we sent a robot down and sprayed it with concrete to seal it and make it long-term.

Lee said: That's pretty grouse, why didn't you ask me to have a rubber-neck at that? Seriously.

Liz said: I just wondered, what is the lifetime of the mine. Is that equal?

Jol said: We probably talked a bit about it last time. It depends on a whole lot of things including economics and the price of gold. Currently I think we generally say we've got about a 10-year mine life at the moment in Martha and that's what our current schedules are showing. But if we drill deeper or wider or find something else then potentially it will grow. If we drill somewhere where we think we've got x amount of gold and we find the grade isn't there then that might make it shorter.

Raelene said: Martha has another 10 years, but does applying for Quattro mean (it will be longer?)

Jol said: That's correct, we're just talking about the Martha project. Does that make sense?

Raelene said: Mainly the Martha because, having lived in Roycroft Street when it first started off, we were given a timeframe and told, "Right, this is going to end and you're going to have this magnificent lake on your doorstep unless we find anything of significance", so that opens up ...

Desirae said: I thought they got more than just gold out of the mine. Is it just gold?

Jol said: And a bit of silver so we send doray out which is gold and silver mix and it gets refined.

## Project Martha – Dewatering stations

- We have designed two dewatering stations, each with 200 metre-deep steel-cased bores drilled from the 800 level down into the historic workings.
- Each station will have two bores into which we will lower submersible pumps.
- Each pump will draw up to 38 litres of water a second out of the mine; lowering the water table in advance of our decline mining (unlike Correnso, where we pumped water from the decline faces and dewatered as we went).



INNOVATION PERFORMANCE GROWTH

OCEANA GOLD

### Dewatering stations

Jol said: One of the key things we talked about last year, and as you can see here, is we're planning to go deeper (sorry to flick a bit). This is just the next little while.

Justin Hawkes said: What level down in that to the old Martha Mine are you going?

Jol said: That's a really good question. I'm not sure if we've got a slide about it but I can maybe explain it here. So, that's the 800 level, you can see we're down a couple of levels below that now ...

Justin said: Which was what level in the old Martha Mine?

Jol said: Good question, so let's say we're at level 15 at the moment, we're planning to go 200m below this. I'll have to check what the old levels are but another 200m. I'm leading into that with this ...

Justin said: So, you're going to need some serious pumping aren't you?

Jol said: Just to try and give you a bit of context, we got that machine in, it's called a raise-bore machine ...

Justin said: The same one you did Union Hill with. Same process.

Jol said: Similar, probably not exactly the same one.

Jol said: So, once we get the ventilation shaft we kept it here and we put it in two cuddies down on the 800 level. We drilled four holes, two in each of those two cuddies, and we drilled them down 200m – 180m in one and 160m in the other – and we targeted the very bottom stopes in the old historical workings. We broke all four of those holes through. They are in the order of 350mm diameter, quite big holes and quite challenging to do that. We had to stop and grout and all sorts of magic things on the way down.

Justin said: What's the aquifer level there?

Jol said: The water level at the moment, we're at about (I'll have to talk in RL's) our 800 level. The bottom of the Gladstone decline is about 715m.

Russell said: By comparison Jol most of the area above Martha is about 1120.

Jol said: On the surface, so that might give you a bit of a feel. That's the very bottom of the historical workings and we targeted those with these holes to then put pumps down and dewater the historical workings and the ground in front of ourselves. We did that because when we mined all of Correnso it was

really hard going, mining down in the water. Literally when you mine a decline you're at the lowest point, all the water comes to meet you and it's very challenging. So, the guys are there trying to drill the face and we've got 60L or 80L per second coming in, so lots of pumps and all those sorts of things.

Desirae said: Do you have air tanks?

Jol said: No, there's a number of different things but it's not like that.

Tim said: Can I ask you a question Jol? Flick on one slide, so you're saying that this is roughly about 700 RL here?

Jol said: It will be a bit below that.

Tim said: From what Russell said, is it the case that the old buggers were down there with pit ponies?

Jol said: Yes, the Cornish Pumphouse facilitated all that. So, we talked about pumping, that Cornish Pumphouse was state of the art technology in the day to be able to pump out that amount of water, not the technology we have now. We've just spent a lot of money on these pumps, over \$2 million to set it all up. They didn't have any of that but they dewatered to that depth. So, pretty incredible.

Liz said: I'm going back to the old days here. So, what would have happened if the pumps had packed up in those days?

Jol said: I'm sure they would have every now and then. The water would have started coming out and they would get out. Just as a side note, recently we had the mines inspector, some Mines Department people and various other people from around New Zealand and we ran an emergency scenario at the site and it was exactly what you're talking about. The scenario was based on if one of these holes hit a lot of perched water and it suddenly flooded the mine and how we'd respond to it. We actually did really well in that scenario so that was interesting.

Tim said: So, making sure there was enough time and facility to get people out?

Jol said: Correct, so all the guidelines we have to run by and things we have to do, we have to do a lot of probe holes around the old workings to control when we break through and things like that to make sure that you don't have a sudden in-rush of water. It's quite significant. Back to the pumps, you can see a couple of photos (slide 6 above) here of the guys down in those bottom cuddies. When we drilled the holes we wanted to put in bore-hole pumps. We were putting them down these holes 200m. We steel-lined those holes and this is quite innovative, it's not very common to do this in underground mines. We got an engineer who came up with it and here the guys are welding the pipe together and lowering it down the hole. Subsequent to that we got the pumps in and we actually turned the pumps on last week. So, that's up and running and pumping back to our main pumpstation at the bottom of the mine that pumps to our water treatment facility. That's now going to start pulling the water down as we mine down and hopefully give the guys a lot better conditions to mine in. Rather than there being water at the face all the time, they can mine down and it's dry.

Justin said: So, that's going to the underground station?

Jol said: Correct, the 794 pumpstation, our existing pumpstation. We can pump 190L per second out of that. We've pumped at varying rates through that, depending on winter and summer and different charge rates. So, at the moment pre-this we were pumping ... we've got two trains that pump about 90L a second each. We had one train going all the time and the other one cutting every third or fourth day for an hour or two just to make up the difference. So, the intention is to run both of those all the time and then pull the water down. We've just been holding the depth for the last 12 or 18 months.

Justin said: And you're going to be holding just below the access which is going down?

Jol said: The intention is to pull it down to the 600 level and we're actually planning to go below that again, below the historical workings. That's in our Martha plan for that 10 years. What we're finding with this water, now we've started pumping it, is it's very clean and clear because we haven't disturbed it with all our mining activity. If we can use the rock in the ground to filter rather than us picking up all the mud and stuff from our mining, it's quite clear water coming up to the pumpstation and then to the surface.

Lee said: The fact that you've struck, or you've actually targeted, deep historical workings, I take it that's to the credit of the old surveying being accurate and you know where they are.

Jol said: So, a lot of work has been done by the engineers to identify where they are and that's very important for us when we're drilling around finding more gold, knowing where those voids are. That's very much going to change our style of mining.

Lee said: I'm just sort of thinking, modern technology with lasers, but these guys were down there with tape-measures and a bit of guessing, and all that distance and you connected up with it. It's amazing really.

Jol said: Their surveys were pretty accurate. We use a thing called a C-ALS (Cavity Auto-scanning Laser System), so we'll drill probe holes into those old workings before we get there for our own safety, and we actually sit this instrument through and it's got a laser scanner on the end of it. Then we pick up those shapes and adjust where the old timers said they were, and it might be out by 1m or 2m and then we just tweak it and align it so that they match with where it actually is and we're doing that all the time so when we're threading through old workings we know that we're safe, we've got enough pillars and things like that.

## Vibration

### Project Martha

#### Six-months to date performance

- Development blasting (201 events)
  - Highest average 0.58 mm/s (consent limit 2 mm/s)
  - 95 percentile 0.99 mm/s (consent limit 5 mm/s)
  - Monitors have been triggered 33 times to date in relation to Martha blasts (max vibration: 1.8mm/s)
- Safety/Maintenance blasting (3 events)
  - No monitors triggered to date (consent limit 1 mm/s)
- No Production blasting to date



## Vibration

Russell said: In the last 6 months to date we've had just over 200 blast events. These are the ones you'll be hearing at 7am and 7pm and occasionally there'll be one at 1.30pm-ish in the afternoon because we're still working in Correnso doing some production blasting there at times as well and they'll sometimes coincide with a blast there. We're limited to the number of blasts we can have a day so we try and sequence them. One event may have several blasts in it. So, for example, with a 7am one, for us at the administration building, we're more than likely to feel a blast over in this corner but at exactly the same space of time there may be one over at Rex and there may even be one up in Empire. They're all timed electronically to go off at the same time or just slightly adjusted depending on what vibration they want to achieve. So, it works very well. We're not actually getting many monitors even being triggered so the average to date is actually a "made up" calculated average. Even the highest 95 percentile. The maximum vibration blast we've had to date is 1.8mm per second. Compared to the earthquake we had the other day, that did about 4mm per second in quite a few of our monitors. I have monitors down here around Rex and the road trucks in the middle of the night will do 1mm to 1.5mm per second reasonably regularly.

Tim said: So Russell, that's significantly less than it was at Correnso isn't it?

Russell said: No. This is development blasting. We're just driving our tunnels forward at the moment to get to the ore body so this is about what I would expect. This is us achieving a 3m to 4m advance on a tunnel that is 5m x 5m. You can do a calculation on the volume of that and the explosives that are required. Once we get into stope blasting, which is the main production blasting, we're talking five to 10 times the explosive weight so we really have to start studying our timing in those vibrations, and the sequencing of the explosives within the blast to maintain the vibrations down. These ones here are relatively small and we don't have to put quite the same effort into the timing.

Tim said: Got it, I got confused between the development and the production blasting.

Russell said: I suspect if people notice these development blasts they will have a sort of staccato sequence to them – bang, bang, bang, bang, bang. Are people feeling that? I hope they are because that's what the vibration traces are showing which is indicative of the way the blasts are actually fired. To date it sounds like we're pretty much on target. The monitors are probably detecting what you guys are feeling.

Desirae said: What's that growly noise you hear?

Russell said: At what time?

Desirae said: Sometimes I hear it during the day when I'm home. I live over there (north-east of the Education Centre) but then I think it's the sound coming through your vents, just echoing.

Russell said: There could be an echo. It could be a distortion of the blast signature over a longer distance.

Desirae said: You know what a bell looks like when you ding it, well the mine is like this harmonic instrument and it makes sound so any little noise can sound bigger. But I do hear this growling noise sometimes.

Russell said: Please take note of the time when you hear these unusual sounds and we may be able to track it back to the cause. Donna and I found that early on with the blasting down the southern end of Martha.

Desirae said: After that earthquake I thought, "Shit, something's happened in there, they had to go rescue the trucks", or something.

Russell said: No, that came through, it was good and it was just a nice indication that all my monitors are working well.

Tim said: So, what did you and Donna find at the southern end of Martha?

Russell said: Down here we had someone comment that they thought they could feel the drilling occurring. It was only when we delved a little bit deeper with questioning that they said it was at a specific time and it was not the drilling but the development blasting, because it was just this little five to nine second interval of noise. Of course, people are expecting blasting to be a vibration. So, when they hear something it's not necessarily something they recognise as a blast.

Liz said: Russell, do you feel the blasting less when on a concrete foundation? When I was in Roycroft Street I had a wooden house but where I am now I'm on a concrete base. Would that make a difference?

Russell said: Technically it may help being on a concrete base. The earth has an element of fluidity in it, you can massage clay and move it around. Concrete is much more rigid. So, I liken it to a marble on a waterbed. Depending on the size of the marble, if you hit the waterbed it will depend how far the marble moves. A concrete slab is a much bigger mass than a wooden pile or a concrete pile so it should move less but it is more important what the substrate is below you. So, if you have high water tables, remembering that water is incompressible, the vibration can sometimes travel more quickly through saturated ground. If there are low levels of alluvium, the topsoils and so forth, you are a bit closer to the rock and in those situations the vibration can get to you a bit quicker. There are a lot of different factors. People will often hear the noise more in a wooden house than in a concrete-floor house. The wooden floor with a pile is like a pin under a drum and the floor of your house becomes a little bit like the drum-skin. A concrete floor is just dead.

Tim said: When does production start? Is there a timeframe, or you don't know, still working on it?

Russell said: Production blasting, I understand, is scheduled to start in January or February next year.

Tim said: So, we've got one more Martha meeting before then Donna?

Donna said: Yes, in December.

Justin said: Russell, my interest is the Martha adjustment to get back behind the slip. When's the work starting on that?

Russell said: Do you mean this area here (pointing to the North Wall)? My understanding is that has been put on hold and we'll get to that later with Quattro.

Justin said: So, there's no road changes or anything in the immediate future?

Jol said: My understanding, at the moment, is not before 2022.

Kim said: A lot of that sequencing is still being worked out with the interaction between Martha and Quattro.

Russell said: Some of these areas here, Quattro takes the bigger picture of where we want to head.

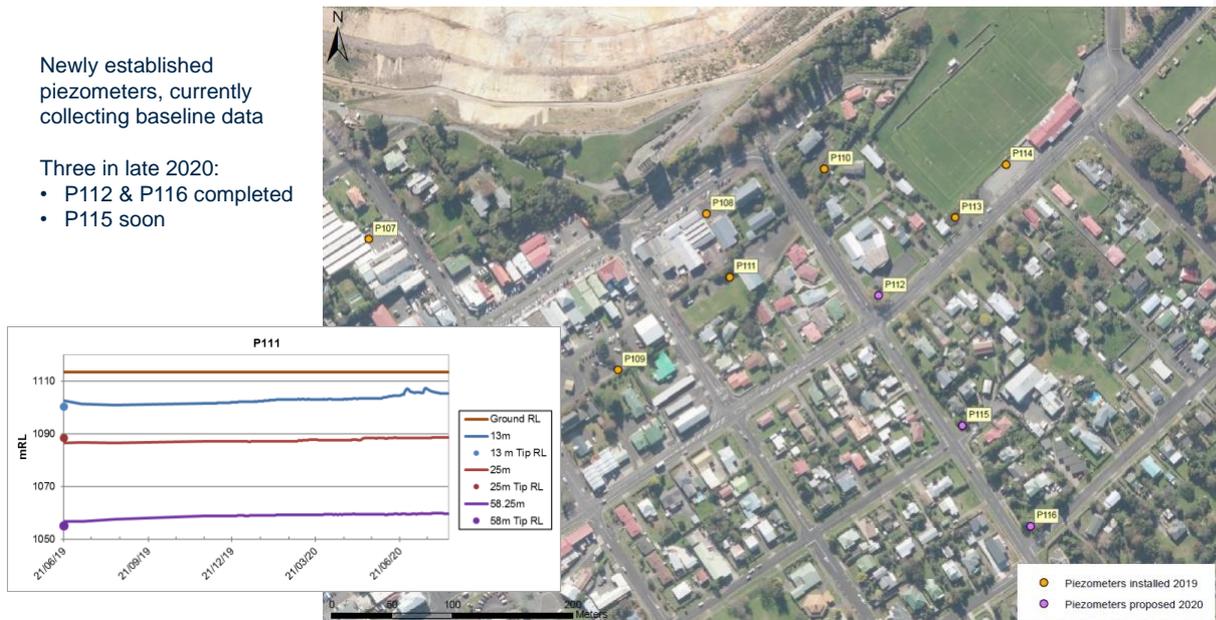
Justin said: Swallows them up.

## Dewatering

Newly established piezometers, currently collecting baseline data

Three in late 2020:

- P112 & P116 completed
- P115 soon



INNOVATION PERFORMANCE GROWTH

OCEANA GOLD

## Dewatering

Russell said: The other main issue is dewatering. Jol mentioned dewatering already and one of the things we want to make sure of for the protection of properties in the area is that we don't unnecessarily dewater any one spot that causes an aggravated settlement in a localised situation which could potentially cause property damage. The way we monitor that is by drilling holes in various locations as advised by the geotechnical experts and monitor the water levels. With the water levels we are monitoring, there are several different aquifers below your houses. You have the shallow area in your topsoils, there's a volcanic layer underneath that and then there's the base andesitic rock where we're mining. There's actually an aquiclude which is a barrier to water moving between these different zones. We put pressure monitors in the different zones down through the ground and we can measure them. We would expect to start pulling water out of the lowest areas of the mine, in the andesitic layers, and we expect the volcanic and the alluvial layers to be separated from those lower levels by these zones and stay pretty much the same.

Lee said: The volcanic layer, is that like basalts?

Russell said: No, it's like ashes and pumice.

Lee said: It's porous stuff?

Russell said: Not particularly no. It's severely compacted. It's effectively rock but that's its original source.

Lee said: Because if you drain through the andesite layer everything is going to dry out.

Russell said: No, and that's why there's actually zones of clay between them that are waterproof. These are not just little zones, these are 5m, 10m or 20m thick. So, it's not something the water moves through quickly. We've got the evidence from the other sites like Correnso where we've been doing this a lot. It was only in one bore that we started to note the andesitic area as being drained and that was directly above and close to some underground workings. This is one that hasn't been in all that long and you can see already that the

bottom one is relatively stable and then this upper one is starting to already show the influence of the rain event. We had it nice and quiet for a while and then all of a sudden we had the rain in winter and it started to bounce up. So, that's a good sign for us. It's showing us that that area is actually nicely controlled by the rainfall event and we expect the next one down to have a lesser and slower response to rain.

Elva said: Is that Gilmour Street going down there?

Russell said: Yes.

Elva said: Heather, Gilmour Street goes down there and that's Kenny Street. Your house is just below it.

Heather said: Kenny Street's here. Right. But you're not coming under my house?

Russell said: No.

Heather said: But I'll feel it though won't I?

Russell said: Yes, I would expect you will.

Elva said: Are your tunnels going to be underneath Gilmour Street?

Heather said: No, you're only going as far as Kenny Street aren't you?

Donna said: That's correct Heather.

Heather said: Where's Mueller Street?

Elva said: That's the next one along.

Justin said: Is that a new piezo on the corner of Gilmour and Kenny Streets?

Russell said: Yes.

Donna said: You would have noticed that drill rig down Gilmour Street.

Justin said: Yes I saw the drill rig there.

Tim said: So, when you see a rig coming it's just putting another ...

Donna said: Piezometer.

Elva said: And that's going to be on the corner of Heather's street is it?

Russell said: Yes. Any doubts come back to us.

Tim said: Russell, how do you make sure the water's not coming down through these tunnels and drives?

Russell said: They're actually underneath. By and large the shallowest ones will be within a few metres but generally this mining is below those piezometers.

Tim said: From what Jol was saying, there will be a lot of dewatering happening in the future. Is that going to change what's happening here? Or are you just going to keep your monitoring going?

Russell said: We just keep our monitoring going. These monitors in particular are the way we tend to go with more of our technical ones. These are actually quite complicated little units now. They're all electronically data-logged so we can set them at monitoring frequencies and monitor the speed at which the water levels change depending on rainfall and things like that. It's quite good for the geo-hydrologists.

Jol said: Recently we drilled a hole from the surface down to the underground workings to supply power and we had to steel-line that hole and then grout it all up to keep those surface aquifers separated from the underground mine. So, there wasn't somewhere the water could go down. If we put any holes down at all we have to seal and case them and make sure that they don't link up and keep those water tables sound so they don't drain into the mine.

## Project Quattro



INNOVATION PERFORMANCE GROWTH

OCEANA GOLD

### Project Quattro

Donna said: We actually do have a draft mine plan for Rex now, but it's still not quite completed, we're still doing a bit more diamond drilling to sure that up. We are hoping to have that in a couple of months. Once we have that we will then be going to see the people that it affects, people who we will be mining underneath. We will do individual meetings with those people in private before we show everyone the map. I think that's important, we want to see everybody privately first. We should be able to do that in the next couple of months and I will be in contact with you when the time comes and bring the map with me. Some of you will remember Graeme Bates from The Property Group. He's an independent property consultant that we must use as part of the consent conditions when we are offering to purchase properties. For some of you, you might not want to sell your property, you might just want to stay there and take what we call an ex gratia, but that will be explained at the time. By the next meeting we should have already seen you.

Tim said: And that's to avoid a situation where somebody's sitting in a meeting here going, "Holy shit, that's my house".

Donna said: Yes, that's right. I did have it in this presentation to start with to be honest, but we decided this morning to take it out for that very reason.

Tim said: And conversations are to be had with all the affected people? No foregone conclusions?

Donna said: Correct.

Lee said: What happens if you so much love your house you want it shifted?

Donna said: All those options would be on the table, nothing's off the table for that. We can discuss that. Project Martha or Rex only comes to the opposite side of the road on Kenny Street, on the gutter side. It doesn't go beyond that.

Jeannine said: We're not going under you though.

Lee said: Yes I realise that. I'm just expanding on what you've said, you've given two scenarios and I thought of a third.

Donna said: We're open to anything that anyone wants to suggest.

Raelene said: Donna, so there'll be a plan coming out in two months?

Donna said: Approximately two months.

Raelene said: Okay, so put ours on hold for another two months?

Donna said: Yes, you will know something will happen after that.

Tim said: And the first thing is a conversation. Are you affected by Rex, Raelene?

Donna said: She is in the Rex area.

Raelene said: I'm in the area this time.

Donna said: You are, you just missed out last time didn't you?

Tim said: So then, the mine plan is released and then a conversation?

Donna said: It will probably be me and Graeme from The Property Group. I'll ring or come to see you and knock on the door and we will organise a time that suits you to come around and talk about it in private.

Tim said: Some apprehension there Raelene? Are you doubting whether it's going to happen?

Donna said: It's been so long hasn't it Raelene?

Raelene said: It's been so long, yes, and we had dealings when we were down on George Street.

Tim said: Are there ways in which these guys can make it nicer for you? Is it the waiting that's the problem?

Raelene said: What's said and what's done are two different things.

Tim said: Good message, so need to be really clear about it.

Donna said: Yes, I know where she's coming from and I know what she's talking about.

Elva said: You said that you're only going as far as Kenny Street right? We all understand that. But say at the end of Kenny Street and Gilmour Street you find a big seam of gold, will you get more resource consent and plan to go further down?

Donna said: Well that is possible but it would have to go through a full RMA process.

Elva said: You could do that though.

Donna said: We could, but we can't just say, "Oh look there's some gold just over that line we'll just nip in and get it". We can't do that. We would have to apply to the Hauraki District Council for a mining licence to do that and that's a full Resource Management Act hearing.

Elva said: But you could do it?

Donna said: We could do it, if we found it.

Tim said: There'd be a timeframe around that, just to be clear. There'd be some testing as to whether it was worthwhile and then there would be the consenting process and the notification. So it would happen, if it was going to happen, in four or five years?

Jol said: It's a fairly lengthy process. We have planned those stopes now, if we decided to change our mind and go through or around them then those sorts of timeframes are what you would be talking about.

Donna said: Yes, it's a very long process.

# Project Quattro

For more information about Project Quattro



Visit our Project Information Office at 86 Seddon St



Log on to our website  
[www.waihigold.co.nz](http://www.waihigold.co.nz)



Call us on our free call Community Engagement Line

Donna said: You would have heard, or seen probably in the paper and on the news, that we announced Project Quattro. All I'm going to really say is it's made up of four parts, Quattro is Spanish for four. Those are the Martha Pit, a proposed pit on Gladstone Hill, a North Rock Stack (this is Golden Valley Road up here) and a new tailings dam. So, this is just a proposal at this stage and could change. We hope to lodge a resource consent application in November and what I will suggest you do if you are interested, which I'm sure you all are, is there's at least three ways to get the information in-depth about this project.

We have a new office in town next to Banana Pepper in the old CAB building at 86 Kenny Street and we're open from 10am to 2pm Monday to Friday. You're welcome to come in and we've got some big displays, which are easier to see, of the whole project. It also has all the road realignments. There's some really great pictures that are bigger than the brochure that you've got, because the brochure is quite hard to see as it's quite small. We've got all that information from the brochure in the shop, so you can come in and wander around and take your time. Jeannine or I will be there and you can ask your questions and we can answer them, and if we don't know the answer we'll find it out for you. The other method is you can go onto our website at [www.waihigold.co.nz](http://www.waihigold.co.nz) and there's a great video that you can watch which gives an overview of Project Quattro. You can also give me a call on the community engagement free phone number and make an appointment for us to come around to your house and talk about it.

## Staff Changes



General Manager  
**Bernie O'Leary**

*Bernie left us this week.*



Acting General Manager  
**Dan Calderwood**

*Dan is our HSE Manager. He will be acting GM until Matt arrives in January.*



New General Manager  
**Matt Hine**

*Matt is currently GM at Macraes.*

## Staff changes

Donna said: Also, we've had a staff change. Our General Manager, Bernie O'Leary, has retired. He left yesterday which we were all quite sad about because he's a great guy, a great leader. At the moment we've got an acting General Manager, Dan Calderwood. He's our Health and Safety and Environment Manager and he will be our acting General Manager in the interim. In January our new General Manager will arrive, someone very young, Matthew Hine, who is currently the General Manager at Macraes down in Otago. He will arrive in January and take over that role then. So, that's a big change for us.

Bernie's ready to retire. He's been living away from his family for five years, they live in Dunedin, or his wife does. He's been going to and fro from here to Dunedin to see his wife and his family. He got us where we are now. He was here when Oceana Gold bought out Newmont and he saw that whole transition through. He's been a great leader and we were very sad to lose him. But, it was time for him. He's right into mountain biking, cycling, marathons and he's a vegetarian – all those great things we'd all love to be and are not.

Kim said: He could well pop up again though because I think he's planning to still do some work in the industry, just not to the same extent or full-time, so he can enjoy all those other things. I doubt he'll just say goodbye to the industry altogether.

Tim said: And he's fronted at these meetings a couple times and has been great – really clear and up-front.

## General questions

Tim said: Are there any questions? Who was asking how big the trucks are?

Elva said: Heather, you were asking.

Jol said: Currently we have 50 tonne trucks underground.

*(Donna brought in some small truck models.)*

Jol said: Smaller than those. That's a surface truck whereas we have dedicated underground trucks. They're articulated so they bend in the middle. We're actually looking at updating those trucks but because the tunnels are the same size the trucks would be the same size.

Tim said: That's tiny, how do you shift rocks on those things?

Jol said: There's a lot of loads involved.

Heather said: Michael wanted to know and I don't know why. I said, "Have you got any questions you want me to ask today?"

Jol said: Heather, when you go back just tell him we're an equal employer and we're employing lady truck drivers.

Heather said: That'll put the wind up him. He'll forget all about trucks if he thinks I'm going to be driving.

Tim said: I wanted to ask about everything that's been talked about today. Are there any other questions that have come up?

Liz said: About the dewatering, you were talking about the massive amount of water that's coming out. You might have already explained, but what happens to all that water? Where does it go?

Jol said: We've got a water treatment plant on the surface next to the mill. That water treatment plant gets us to levels suitable to discharge into the Ohinemuri River and there's a whole heap of requirements, which Russell could probably answer better than me, about those flows matching what's coming down the river and the quality and testing and so forth.

Liz said: Right, so it's not usable? You know we do have water problems in the summer. So, it's not usable in any way? I don't necessarily mean for drinking.

Russell said: The difficulty with the water is it is somewhat mineralised. It is what you would call "hard water".

Liz said: Oh right, yes.

Russell said: It would take a lot to make it soft enough to want to put it in the water pipes around your house.

Liz said: But could it be used for anything else?

Russell said: We do use some of it ourselves for things like dust suppression but even then it tends to drop out the scale just through the frictional and chemical changes as it runs through pipes and ends up with a lime scale on the inside. We have a programme already on all of our main pipe systems to remove that scale over time. It's purely a magnesium calcium scale so it's relatively benign but it would affect the water pressure in your water pipes.

Leigh said: I don't know if it's relevant or not but, just so you know, in town we lose about one-third of our water because the pipes are too leaky. The council is trying to do some different things at the moment to try and fix those pipes as they are quite old. If you live at the bottom of town you probably notice at night there's not a lot of water pressure from late at night until early in the morning because they depressurise the pipes because it's pushing the water through the pipes and they've been losing about a third of the water. They're trying to fix that which will make the water situation a lot better.

Tim said: The second question from me is, have you got any concerns? How has it been going for you in terms of what you've noticed? Are there any impacts at the moment? Or are you just wanting to know what's going to happen in the future?

Heather said: It's got nothing to do with the mine, or it might have, but you know the shops up here at the end of town, near the hotel, has the mine bought that?

Donna said: The PGG Wrightson building? No, that's going to be the new medical centre, the one from School Lane. They've bought that building.

Tim said: My next question – is this meeting answering the questions that you have?

Elva said: Yes definitely. Showing that map and showing where Gilmour Street is and what you're going to do on the corner, that's mainly what we came about isn't it?

Heather said: Yes.

Elva said: That was mainly what we came about. As I said before, I'm quite a way away, on Amaranth Street. But I'm concerned about what you're going to do to the pit walk, you're going to wreck half of that aren't you?

Donna said: If you come down to the shop you can have a look at the pit rim walkway. But, just keeping in mind what I said, that that's just a concept at this stage and nothing's finalised with that project yet. We came out early because it's quite a big project. Once we get all our technical reports and visual simulations back you'll be able to see what's going to happen.

Elva said: Waihi people walk around that pit.

Donna said: Yes, they do.

Elva said: Visitors do, my family do. They're coming down this weekend and now we can't walk right around it anyway how we used to be able to.

Donna said: You can now.

Elva said: Yes, we will be going around it. And another thing, which is probably nothing to do with the underground stuff, where are you going to put the pumphouse?

Jeannine said: Come to the shop, come and see us.

Elva said: I'll come on Monday.

Donna said: We'll look forward to seeing you.

Elva said: When people knew that I was coming to this meeting they were all saying, "Ask about the pumphouse". People want to know.

Donna said: Tell them to come to the shop. That's what the shop's for, for the general community to come to. We had open days at the hall for those people that weren't closely affected and then the shop is for the whole Waihi community to come down and have a look.

Elva said: Right, well I'll come into town and have a look on Monday.

Desirae said: Is that information online?

Donna said: Yes, it is. If you go onto our website all of that stuff in the brochure is on the website, along with a really good video.

Desirae said: Good, I saw half of it today.

Raelene said: So, the water that gets treated and then pumped into the river, what effect is it having?

Russell said: There are very strict requirements on the amount we are allowed to discharge at any one time. We have a proportional discharge rule and it has to be a certain quality. We also do aquatic bio-monitoring each year during the worst time of the year with low flows, to determine what effects there are. We do continual monitoring of the water quality as we discharge and every week one of my staff has to do a suite of samples up and down the river. We know pretty well what we are discharging. The hardness would be nice to have better, but it's not toxic, it's a system hazard of trying to put water through pipes.

Raelene said: Has it affected the fish life?

Russell said: No.

Tim said: Leigh, is that something that council keeps an eye on? Do you get the results of the monitoring?

Leigh said: It's more of a regional council responsibility but we do take an interest in all the information that's presented. We get questions from the public and community as well so it's good to know what's available.

Tim said: And so the ultimate arbiter about whether you're doing it right, you check, but also the regional council has got an idea of whether it's meeting the conditions?

Russell said: Yes.

### **Next meeting**

Tim said: When is the next meeting?

Donna said: It will be December, we'll let you know. Keep an eye on Martha Matters as it will be advertised there so you all know when to come. Hopefully you won't have to RSVP because hopefully Covid will be kicked into touch by then.

Tim thanked everyone for coming to the meeting.

The meeting finished at 4.11pm.

<p style="text-align: center;"><b>Next meetings:</b> <b>3pm, Thursday 10 December 2020</b> <b>3pm, Thursday 11 March 2021</b></p>
---

<b>Attendance register</b>	
Heather Ross	Elva Douglas
Liz Cannell	Desirae Crowe
Raelene	Lee Anderson
Leigh Robcke	Justin Hawkes
Kim Calderwood	Donna Fisher
Jeannine Wiki	Russell Squire
Jol Jardine	Tim Clarke
Louise Fielden	