

**Project Martha  
Correnso (CEPA) / Slevin Underground Project Area (SUPA)  
Combined Community Meetings**

**Thursday 4 November 2021**

The following is a record of the Project Martha and CEPA/SUPA combined community meeting held at 5.30pm on 4 November 2021. Where possible, we have tried to capture individual contributions at the meeting but these do not purport to be verbatim notes.

Due to Covid-19 social distancing requirements the meeting was held at the Presbyterian Church Hall, 78 Moresby Avenue, Waihi.

**Welcome**

Tim Clarke said: Welcome everybody. This is the September meeting which we had to put off because of Covid restrictions. Now we're at level 2 there's an opportunity to run this meeting which is great because otherwise we end up leaving it too long. For those of you I haven't met, my name is Tim Clarke and I'm the independent facilitator. This is Lou Fielden who is the other half of our team and her job is to make sure that we get a clear and accurate record of the meeting, which will be available to people after the meeting. If you want a copy of the minutes or the recording of the meeting then you email Donna. Erich, you are indicating you would like a copy.

Tim said: We've got a different meeting format tonight because of the Covid restrictions. We are all supposed to be 1m apart and the reading that Louise and I have done indicates that we have discretion over whether we wear a mask or not and we want to have a conversation about that first. In our view this is like a conference facility, we're not in a public-facing job like standing at a checkout in a supermarket, so we have a choice to make about whether we wear a mask or not. Does anybody have a different understanding of that? Shall we make a choice as a group as to whether we leave our masks on or off? What do you want to do? (The full consensus of meeting participants was to take masks off.)

Tim said: Just to check then, is everybody okay with taking our masks off?

Everybody said: Yes.

Tim said: As usual if you have a question please put your hand up and at a suitable time I will invite you to speak. Please start with your name and if your question is for clarification we will get it answered on the spot, however if your question is more of a major discussion point then we'll note that down and discuss it later in the meeting as a separate agenda item.

After a round of introductions I will hand over to Donna who will introduce the content and format of tonight's meeting. Finally, I note that this is our first combined Project Martha and Correnso meeting. The reason we've done that is because with holding two meetings in a day, some people want to attend both, the meetings are starting to overlap in their subject matter and we thought it now logically packs down into one meeting.

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

*As part of the round of introductions the group was introduced to Josh Smith, Alex Watkins and Mark Burroughs as part of the Oceana team at Waihi. Tim asked them to say some more about their positions.*

Josh Smith said: I am Project Communications, so I work with brochures, the website, Mining Matters and those sorts of things.

Alex Watkins said: I am the new Underground Manager; I have been four months in New Zealand. My partner is a kiwi and I'm an Aussie. I met her in Perth, and she's been away from home for the last nine years so it's only fair that I live up to my end of the bargain and come over and meet the family and live in New Zealand.

Mark Burroughs said: I am working in Russell's role but he is coming back to work one day a week.

## Purpose of meeting

Donna Fisher said: Hello everyone. I am Donna and I work for Oceana Gold as the Company Liaison Officer. So, for all things to do with the community you will be able to find both Jeannine and I to talk to. I don't live in Waihi but I have been in Waihi for 48 years and I currently live at Athenree. As Tim has already pointed out this meeting has been combined. It was Correnso and Martha and we've combined the two. These are the consent conditions around holding these meetings. They say we have to have a meeting every six months.

### Correnso/SUPA

#### Purpose of meeting

Under Condition 62 of the Correnso consents we are required to hold community meetings every six months. The consent states that the purpose of the meeting is to:

- 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.

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INNOVATION PERFORMANCE GROWTH

OCEANA GOLD

Donna said: This is condition 99 of the Project Martha consent. This is basically outlining the same condition that CEPA has for community meetings.

### 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.

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INNOVATION PERFORMANCE GROWTH

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# Community Meeting

## Outline

- ▶ **POINTS FROM LAST MEETING**
- ▶ **MINING UPDATE**
- ▶ **ENVIRONMENT**
- ▶ **SOCIAL & COMMUNITY**

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INNOVATION PERFORMANCE GROWTH

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Donna said: The outline of today's meeting is that we're going to talk about the points that were raised at the last meeting, Alex Watkins is going to give you a mining update, Mark Burroughs will give us an environmental update on monitoring and then it is back to me to talk about the social and community updates.

## Points from last meeting

### Points from last Correnso & Project Martha meetings:

- ▶ Suggestions from the last meeting re communication of meeting dates have been taken on board and going forward will be advertised in the following mediums:
  - » OceanaGold Monthly Updates in HC Post
  - » OceanaGold Waihi Facebook Page
  - » Mining Matters
  - » Gold FM
- ▶ Explanation of the cyanide cycle

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INNOVATION PERFORMANCE GROWTH

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Donna said: At the last meeting a lot of people were talking about us communicating the opportunity to attend this meeting more widely and opening it up to more of the community, not just aiming it at the consent condition requirement which was people living in the Correnso Project area and the Project Martha area. We took those comments on-board. This time we advertised it in the H-C Post which used to be the Leader, we put it on our Facebook page for those who have Facebook, as always we put it in our Mining Matters newsletter and we advertised it on Gold FM. So, I'm hoping that everyone at some point came across the advertisement that the meeting was going to be on. We took that on-board and we put it out there more widely. Yes Erich?

Erich Schmidt said: (Holding up the newspaper) we've got a whole page in the newspaper and the meeting was this big (showing the advertisement). Everything else was more important than the meeting. (You could) make the notice bigger.

Helga Schmidt said: Put it at the top and not at the bottom of the page.

Tim said: Can I just check with you Donna where else the meeting was notified?

Donna said: It was also put on our Facebook page, we advertised it on Gold FM and it was in the Mining Matters newsletter that gets delivered to all of the properties around the east and the Project Martha areas. We've got a big email list of people who would rather have it emailed to them and a lot of them aren't actually in the project area but they are just interested. We also put copies at the real estate agent's, the Hauraki District Council office and at our shop in town.

Kim Calderwood said: Also, the H-C Post update goes on the Pit Rim noticeboard.

Jane Murray said: I've noticed a lot of them have been ripped off.

Donna said: That's good to know. Josh might be going for a walk tomorrow.

Dave Wellington said: There was an update about how you sponsored the Beach Hop. You were *one of the* sponsors of the Beach Hop, not the sponsor of the Beach Hop.

Josh said: We're the primary sponsors of the Beach Hop.

Dave said: Not the only one though. It's all just little twists. It's all propaganda bruv. You read every one of the things in the paper, it's all propaganda. And (pointing to Alex) you live in Waihi, in one of the mine houses eh?

Alex said: I pay rent.

Dave said: I'm just so frustrated with the bollocks that's coming out of the mine's mouth. I've lived in this town for 11 years. If the mine keeps on talking about looking after Waihi, start looking after Waihi. We've got everybody telling us ... I'm not anti-mining. I love gold. I collect gold. I went out of my way to put my gold on tonight to prove that I'm not anti-mining. But if I keep reading all that crap in the paper then all you're doing is alienating me. You're alienating the people of Waihi. We live here, we pay our rates here. 90% of the miners live at the beach and I don't blame them, they're making the money – have the house, have the boat, have the whole lifestyle. But don't keep on telling me how good the mine is for my town.

Tim said: What would be better Dave?

Dave said: Don't tell me anything. I'll sit at home in ignorant bliss. Don't make me feel like you're trying to mug us off. That's all it looks like. Every time I read the paper you try and mug us off. 77% of 272 miners live locally. You're classing Katikati and Paeroa (as local). What the hell? What influence does mining have on them? It's the people of Waihi. Waihi doesn't need the mine, the mine needs Waihi bruv.

Tim said: Do you think it's both?

Dave said: No, I don't. It's all propaganda – *"we shop at your supermarket"*. Sell your house. Your house will sell in two weeks mate. The houses are not staying on the market long. Sell your house, leave your job, the person who buys that house will shop in the supermarket. Your propaganda in the paper – *"the mine pays \$300,000 in rates"* which is only because you own 250 houses because you shook the frickers out of it.

Tim said: Dave, can I ask you a question about that? If, for example, the mine didn't exist ..... and there were 290 jobs that come from the mining ...

Dave said: Not from Waihi bruv, very few locals in Waihi. They're advertising jobs in Aussie. I've got mates in mining and they are sending them emails, "come back, we've got jobs". You Google the Oceana Gold website, there's no jobs advertised. It's propaganda bruv.

Tim said: Dave, what I'm going to ask you is if you've got a question it goes in the minutes, these minutes get circulated to about 40 or 50 people wider than this meeting so it's valuable that that happens.

Dave said: But it gets us nowhere. The town is broken. I'm frustrated.

Tim said: I want you to make what you say make a difference. As we work our way through the meeting there will be discussion and opportunities for questions during the meeting. Put your hand up and when I point to you, then you can ask your question.

Donna said: The other point from the last meeting was an explanation about the cyanide cycle.

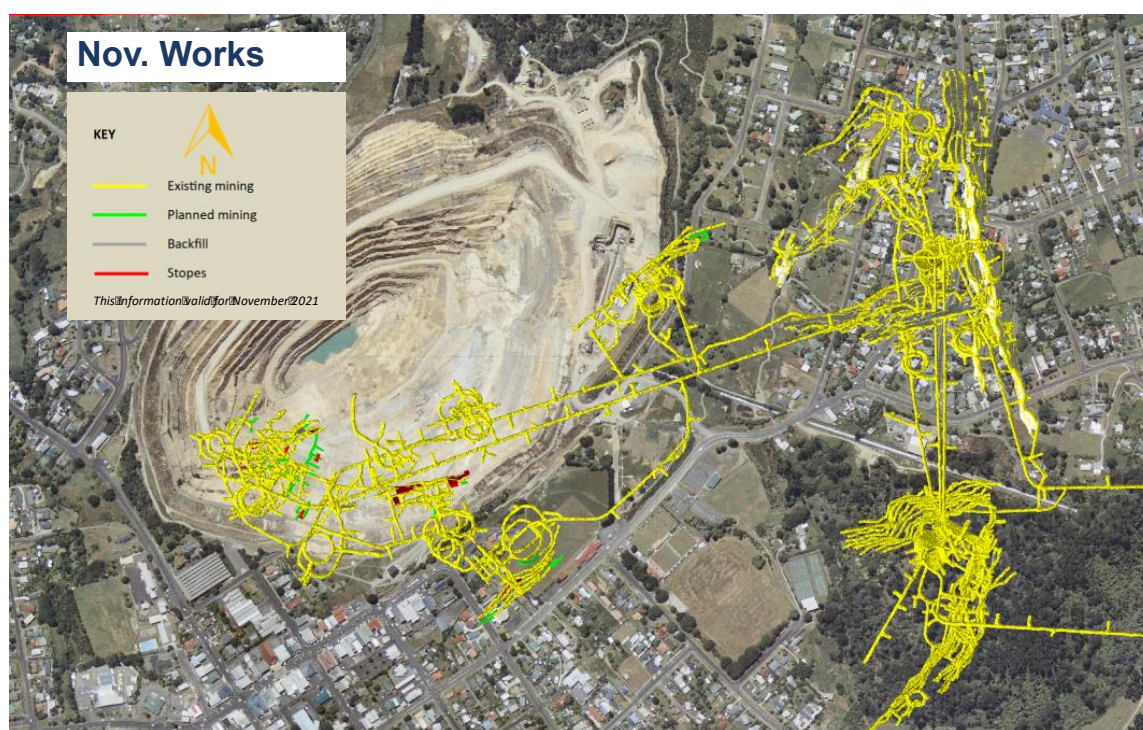
Erich said: No, my question was "What is in the ponds?" The sludge.

Donna said: We've got Kirsty here tonight and she's going to have a chat about that very issue.

Erich said: Good.

Donna said: To start with we're going to go to Alex and he's going to talk about mining in November.

## Mining update



Alex said: We've got three main structures that we're mining from in Project Martha which is pretty much in the thick of the ramp-up period at the moment. (Pointing at slide 6 above) We dropped our first stope in the Rex on 14 August. This is our Royal West which is coming on-line at the moment; and then we've got the Edward stopes over here. I'll run through it in a minute.



## Project Martha as of November 2021

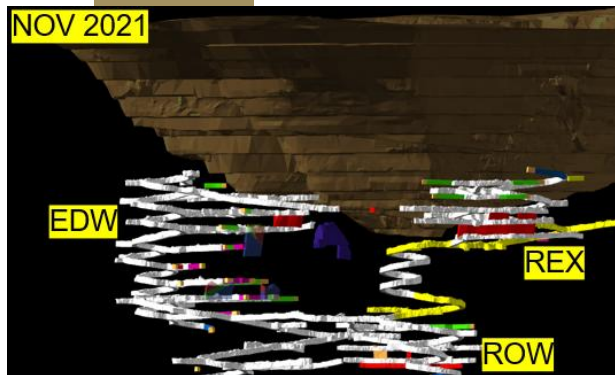


Fig 1

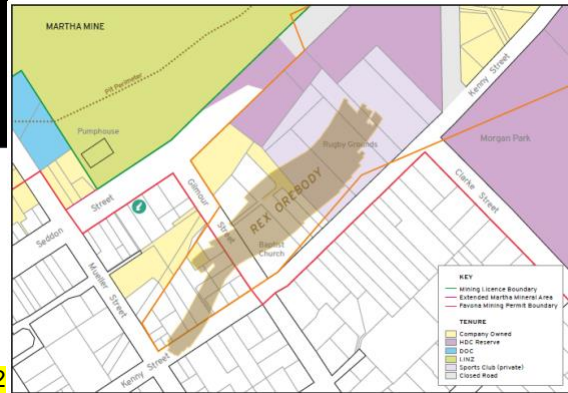


Fig 2

Alex said: This is Project Martha (slide 7 above). As I said, our primary ore source at the moment is from Rex and that's the highest structure in the mine at the moment.

## Project Rex

- First stope was fired 14<sup>th</sup> August
- Current stoping activity is ~200m below surface
- Modified Avoca method of mining
- Reduced ore drive profiles
- Quartz vein structure
- Firing patterns, sequence, decking and stemming
- Hole diameters

Fig 1

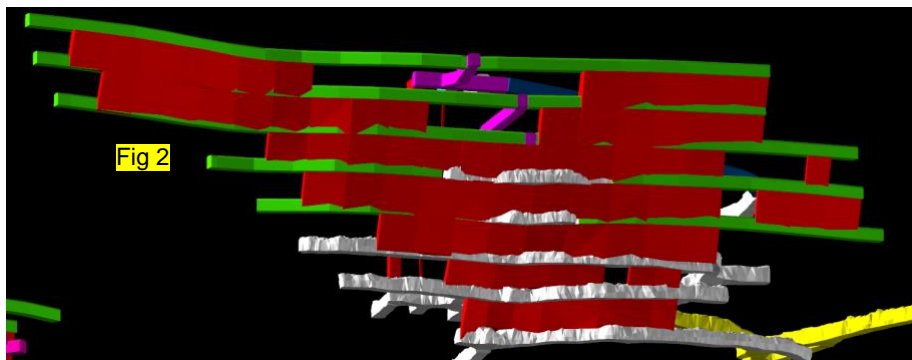


Fig 2

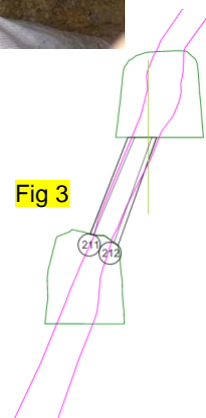


Fig 3

Alex said: We're mining the Rex 9 (slide 8 above) which is that red bottom level. Currently we are about 200m from the surface. We are aware that we're getting some blast exceedances in that area. We got two in October and we are mindful of that. We are implementing new drill and blast techniques, changing the patterns, changing the sequence in the way we're firing and doing some innovative stuff with our charge holes. We are using emulsion products instead of ANFO (ammonium nitrate fuel oil) and we're using emulsion products which are a little bit softer on the ground. We're also decreasing the diameters of the holes. At the start we were charging 64mm diameter holes to a 10m height. We've changed that to 51mm cased hole because the ground is really weak in there. The gold is hosted in a quartz vein and that quartz vein is brittle so when it has been blasted you pick it up and it's like sand. I don't know if you can see the picture on slide 8 clearly but I took a photo of what it looks like. That's our blast hole and the red column is what we're charging. You can see the fines around it. That quartz is really soft. We are mindful that, when we blast, the energy transfers straight

through that vein and that's how we're exceeding our blast parameters. Typically, our charge-weight is around 20kg per charge hole and that's called the MIC or the Maximum Instantaneous Charge. We're trying to drop that from 20kg to 15kg especially in these upper levels. We're mining this level here and we've just started mining this one this month. We're ore driving out in the green in those two levels, the Rex 5 and Rex 6, and then we're stoping in between.

Tim said: Alex, did you say you dropped your first stope in Rex in August?

Alex said: Yes, on 14 August and you can see how these drives here kind of end and we were chasing a structure but there was no gold in that structure. So, instead of leaving that open it's part of the consent condition that we backfill all these dead-end drives that we're not stoping. All these little stud drives that you can see here, think of it like a misfire. There's no gold in there so we're not going to stope it. We're going to backfill because it's part of our consent to backfill all these drives here that we're not stoping.

Mike Hayden said: You said it was brittle and almost like sand. Is it the same structure right to the surface? Or does it get denser as it gets closer to the surface?

Alex said: Good question. We know this area really well because we're in it at the moment and we know this area quite well because we are ore driving through to it. This area up here, because we've got no capital infrastructure or operating infrastructure at the moment, we're only going on diamond drill-holes. If diamond drilling indicates that not only does the grade of gold pick up, it's a really good grade in this, the higher up you go in the mine it's a better grade, so it's a higher concentration of gold there, but it's a better structure as well the higher you go up.

Mike said: Will any vibration increase as it gets to the surface because of the denser rock?

Alex said: We're literally doing it this week – dropping the MIC, which is the charge-weight of that explosives hole, from 20kg to 15kg. It's a big reduction in charge-weight. We're dropping the first stope on Saturday at the 15kg MIC level and we reckon that we're not going to exceed past 3.5mm/second. Our consent says we can't go past 5mm/second.

Jane said: I was going to ask the same thing. That's under the rugby field isn't it? As you get higher, is there any chance of the ground subsiding like a sink-hole?

Alex said: No, absolutely not. You can see that in this slide here (slide 8). The minimum we maintain for our workers to work on under here is a one-to-one pillar ratio. What that means is the drive height is 5m. That's a cross-sectional view of the drives and that drive height is 5m. We can allow miners to work 5m high on top of that 5m open void. That's a one-to-one pillar. This here would be over a one-to-one pillar. Not by much – it looks quite similar. There's probably 7m or so in between that distance. We can have miners work around that point. To give you context, for that 7m pillar you've now got 200m of in situ rock above it that we're not mining. We've got (the surface level) 200m above it. With the Modified Avoca mining method, everything here that you see is backfilled. At the end of the project there is no chance of it subsiding because we're backfilling it.

Erich said: At the moment you are mining 183m. There is something wrong – there was no notification today when you blasted in Correnso. The number of the blast was 04B at 1320 and there was no notification.

Donna said: That would be a development blast though and we don't notify for development blasts.

Erich said: No, 1320. That's a production blast.

Donna said: Oh 1320.

Jeannine Wiki said: At 1320 – what was the date? Today?

Erich said: Yes.

Alex said: In Correnso?

Erich said: Yes.

Jeannine and Alex said: We didn't blast in Correnso.

Erich said: This number is registered. You don't believe me?

Jeannine said: You did blast and notifications devices went off.

Donna said: But that was in the Martha north.

Alex said: Yes, we blasted the Edward which is this area here. This is directly under the pit, there are no houses over the Edward.

Jeannine said: So what was your question sorry Erich?

Donna said: The notification didn't go off.

Jeannine said: But your one did?

Erich said: Yes.

Alex said: See that red stope there, that's what we fired today and we fired a riser shot in here in that golden stope.

Tim said: Erich, explain to me again. It happened and it didn't register or it did register?

Erich said: It registered. 1.11 at Correnso.

Tim said: Does that make sense team?

Jeannine said: The monitor closest. Which monitor was it Erich? I can look it up.

Erich said: I don't have the internet here, if I had the internet I could look it up.

Tim said: We can do is get the answer and insert it in the minutes, good question raised thank you Erich.

*Post-meeting answer:*

*We did blast that day at 13:20. The blast was in Martha north (under the open pit). It is not unusual for other monitors to trigger after a blast. The monitor closest to Erich is Secondary SW – it did not trigger, but the monitor Secondary West did trigger at 1.11mm/s.*

Allen Brownlee said: With the backfilling, after you've done your mine how is it compacted? Because obviously if you backfill something you're never going to get it as solid as it was originally.

Alex said: We have pretty heavy machines that drive over the top of it. These machines are about 60 tonnes, bidders that go over the top and compact it in. It does a pretty good job of compacting it in.

Allen said: What about the last bit where the machines don't fit?

Alex said: We tight-fill.

Erich said: No, if you go down in the mine you see that there is so much left.

Alex said: There is a portion in the back because we have a rounded back but that is still considered tight-fill. (Back to slide number 8) See how these edges at the top form? We can only squeeze dirt to about that much so that top won't be filled. But we'll keep pushing up and we'll probably have about that much (20cm) gap from the backs to the top of the dirt.

Tim said: Erich, does that sound right from what you've seen?

Erich said: No I saw more. I have seen 1.5m is not filled in.

Alex said: No, I wouldn't say that. It keeps getting pushed up. It gets pushed up initially by a bogger and then afterwards it gets final trimmed by an integrated tool carrier which is a front-end loader. This is a little bit smaller so it can get into the nooks a little bit easier than the bogger.



Tim said: Alex, the two things you've said is that you backfill and also you're 200m below the surface so the prospect of something collapsing to the extent that it affects the surface is ...

Alex said: ... it's not happening. That quartz vein is very brittle but it's only 1m to 3m wide. The country rock is in andesite and it's extremely good country rock. The host rock is high MPA so that helps as well.

Allen said: Is there quite a bit of the host rock between each of your mining levels?

Alex said: No, this is the vein here. See the purple line? That's the outline of the vein. That shows you the width. The drive is 5m wide and the vein ranges from about 1m to 3m wide. This is the foot wall and this is the hanging wall. Both the hanging wall and the foot wall are in andesite host rock which is very competent ground.

Allen said: Is there quite a bit of that host rock or andesite between each layer of the mine?

Alex said: Between each level? No, the vein runs all the way up and we try and aim our tunnels in the middle of the vein. That's quartz vein and that's what we're trying to stope out. There's no andesite there. The andesite is on the outside.

Allen said: With the levels that are shown (on slide 8) in red, green and grey, what I'm trying to work out is how much of that is gold-bearing and how much of it is andesite?

Alex said: The green there hasn't yet been mined – it is to be mined. The silver is our as-built so that has been mined. That's what we're mining at the moment, but it takes time.

Allen said: What's the red?

Alex said: That is the stope. This is the green and the stope is this here (in red).

Allen said: Okay.

Mike said: Just to clarify, the stope doesn't go sideways forever does it? It's just like a tunnel.

Alex said: Yes, this drive here has only gone to about 100m. This one is a bit longer at about 150m. It changes depending on where the gold is. We need to make it economic.

Tim said: (Pointing to slide 8) This is the top level of your mining and it's another 200m above that?

Alex said: Yes, 200m from where we're mining at the moment. I'll have to get the right numbers but that there is about 150m to 160m below the surface. Pretty much more or less Rex and Correnso are at the same height.

## Correnso

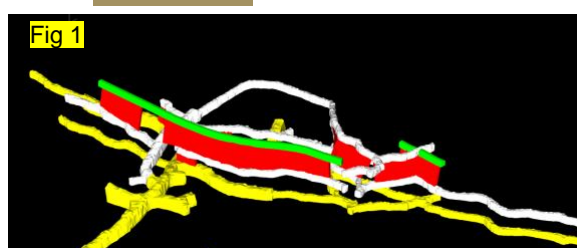


Fig 1

- Narrow vein area
- Smaller firings to Project Martha
- Smaller equipment and only 2 person crew
- Slower development and stope rates than Project Martha
- ~160m below surface at highest point

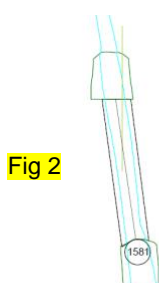
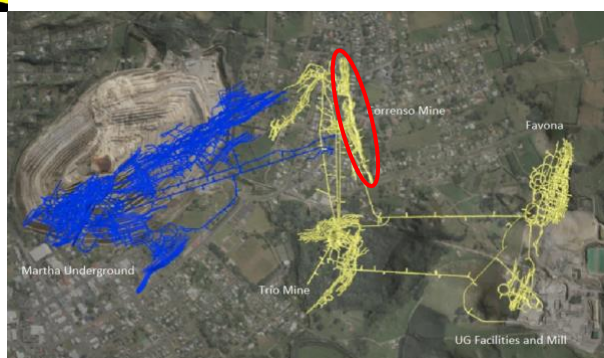


Fig 2



Alex said: The green one for Correnso is called the 954 level and that's the very top level in the mine. The highest point in Correnso is 160m below the surface. Correnso is a little bit of a funny one. It's a narrow vein mining method which basically means everything is smaller. We use much smaller gear. The drives are a lot skinnier and are purpose-built for humans not for big dump trucks. It's very selective mining. Normally in narrow vein mining the gold is quite rich so it's important to keep the stopes nice and tight with little to no dilution on either side. The stope height is 3m by 2.5m wide. Our bidders are tiny in comparison to those we use in Martha. We call them teaspoon bidders and they can fit 2 tonnes of rock in the bucket. The big bidders that we've got in Martha can fit up to 20 tonnes in the bucket. So it's an economy of scale game between Correnso and Martha. We've had slower development rates and stope rates and because of Covid the crew sizes are very small. In Martha we've got 30 hard rock miners on each crew, not including management, safety, maintenance, electrical or supervisors. Over in the narrow vein section we've only got two per crew doing all that work. Because of Covid we've lost about 10 people in the Waikato because they can't come to work due to lockdown. We have used those narrow vein miners in the Martha project. That's probably why you're not feeling many blasts at the moment in Correnso because it's at very slow rates. Those red panels will pretty much complete the Correnso section. We're not going to be going higher than the 954 level.

Tim said: Alex, roughly how long until that piece is complete?

Alex said: There are always little extensions that we find on the way. It's probably not ideal to give an exact date but, with the information and data we've got, the Correnso 954 level mining down to the 948 level will finish in October. But things can change. If we find more we will continue.

Tim said: So, roughly a year?

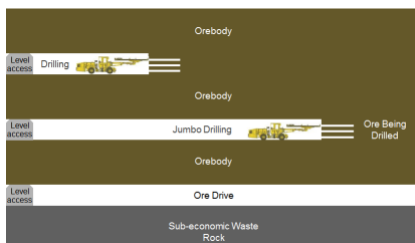
Alex said: Yes, with the information that we've got right now.

Tim said: Sure, thank you. So that's your bit?

Alex said: Yes, pretty much. These slides here explain the Modified Avoca Technique.

## Modified Avoca Technique

### 1 Drill drive access



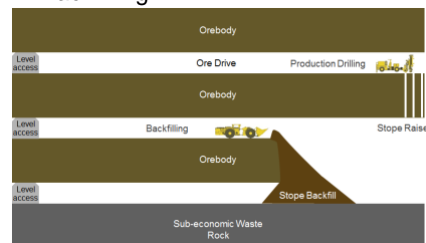
### 2 Production drilling



### 3 Production blasting & bogging



### 4 Backfilling



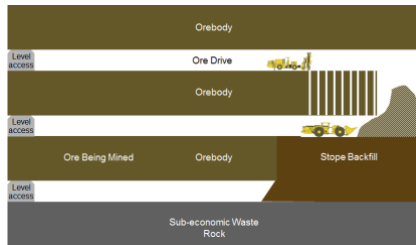
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INNOVATION PERFORMANCE GROWTH

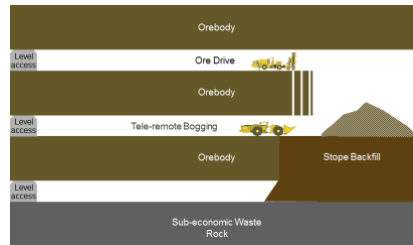
OCEANA GOLD

## Modified Avoca Technique

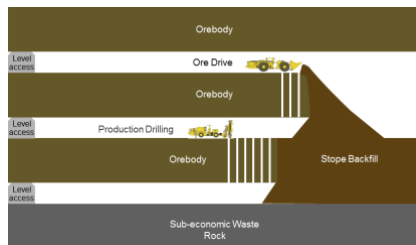
5 Blasting & bogging over backfill



6 Progressive blasting/bogging



7 Multi-level production/backfill



Alex said: (Going back to slide 7) Between Rex and Royal West and the Correnso stopes we implement a Modified Avoca Technique. Over in Edward we do a combination of both. 20% is Modified Avoca and the other 80% is what is called a Transverse Mining Method. Without going into too much detail, we run a foot wall drive in waste and then we have all these little cross-cuts coming off into the ore body. It's a totally different mining method than Modified Avoca but it all gets backfilled.

Alex said: (Slides 10 and 11) This is just touching on the Modified Avoca Technique. The first point is punching the ore drives in the ore body. The second point is production drilling so that's our down hole drilling. This is now our stope and the white is the tunnel to get us access to the stopes. Then we do production blasting so that's all fired broken rock. At the moment in Rex it's like loading rice. It's all sand – brittle and soft. We are putting extra ground support in to deal with that in localised areas. Then we backfill the stope so we can get access over here. You can see the production drill is now drilling this level on top of him. Now we need to backfill this area which will give us access to get us that material there. This method is really good because it allows us to backfill everything in the mine. Any questions?

Tim said: Can I ask the question – when that first stope was “let go” in August was there a noticeable vibration?

Donna said: Let's ask someone who lives there.

Liz Cannell said: I wouldn't say definitely but then often I'm not home.

Donna said: We'll call Mark Burroughs from Environmental up and he can go through his monitoring slides.

## Environmental update

Mark said: I have the vibration monitoring results for the last six months and also water level monitoring that we do around town and settlement monitoring as well.



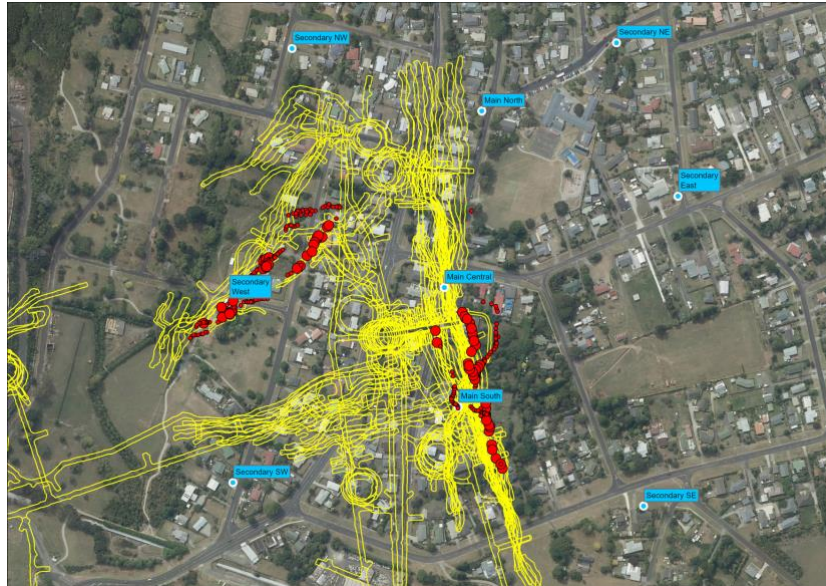
## Vibration

### Correnso/SUPA

Six-months to date performance\*

- Development blasting (82 events)
  - Highest average 0.75 mm/s (consent limit 2 mm/s)
  - 95 percentile 1.45 mm/s (consent limit 5 mm/s)
- Production blasting (43 events)
  - Highest average 1.51 mm/s (consent limit 3 mm/s)
  - 95 percentile 4.37 mm/s (consent limit 5 mm/s)

No blasts >5mm/s in last six months.



\*results for 6 months from 01/04/2021-30/09/2021

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INNOVATION PERFORMANCE GROWTH

OCEANA GOLD

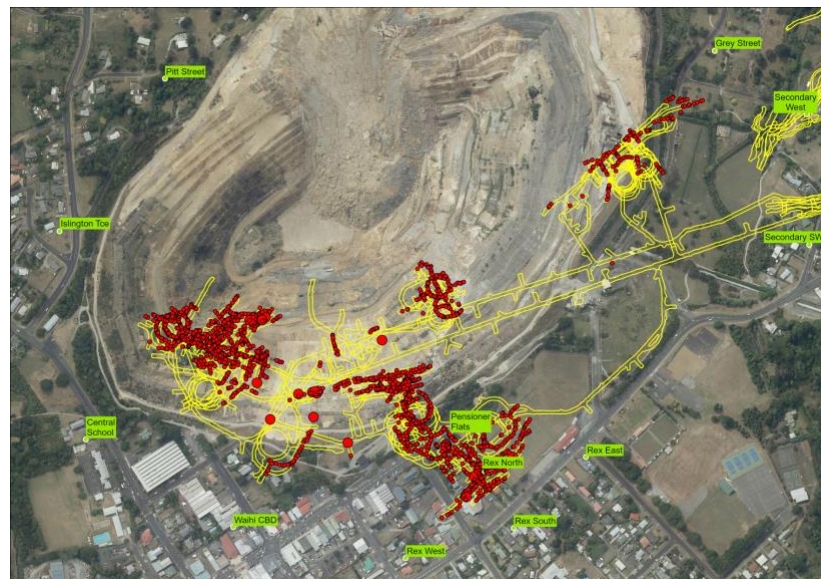
Mark said: With Correnso, these bigger circles are when they've done production blasting and the smaller ones are when they've done development blasting. This is for the period from 1 April through to the end of September. They've done 82 development blasts and 43 production blasts during that period in Correnso. It's all been pretty good in Correnso. We had a highest average of .75mm/second for development blasting and our limit is 2mm/second so we're under the limit. The rolling average was at 1.45mm/second and the limit is 5mm/second so they are doing quite well with their development conditions. The production blasts are also complying with the conditions. They have had no blasts over 5mm/second in the last six months in Correnso. Any questions?

## Vibration

### Project Martha

Six-months to date performance\*

- Production blasting commenced
- Development blasting (215 events)
  - Highest average 1.18 mm/s (consent limit 2 mm/s)
  - 95 percentile 2.67 mm/s (consent limit 5 mm/s)
- Production blasting (20 events)
  - All production blasts < 5 mm/s
- Safety/Maintenance blasting (3 events)
  - All results < 1 mm/s
- 3 development blasts > 5 mm/s in last 6 months, still in compliance with 95 percentile 5 mm/s limit for development



\*results for 6 months from 01/04/2021-30/09/2021

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INNOVATION PERFORMANCE GROWTH

OCEANA GOLD

Mark said: With Martha, this is from April to the end of September. They are doing a lot more work in Project Martha than in Correnso because Correnso is starting to finish up and wind down and they are sticking to narrow vein mining. Production blasting started on 14 August. It had been all smaller development blasts because they had to build the tunnels to get in here. There were 215 development blasts which is a lot more than in Correnso. They've been complying with the limit there. The highest average monitored blast was

1.2mm/second and the limit is 2mm/second. They have the same limits as in Project Martha. The 95 percentile is at 2.6 mm/second and the limit is 5 mm/second. They have done 20 production blasts during that period. All of the production blasts have been under 5 mm/second. In October we had two that were over but we haven't gone through the October data just yet. We've had three development blasts that have been over 5mm/second which is unusual because usually development blasts are the smaller ones. We have had three that went over 5 mm/second during this period.

Liz said: Can you tell me why it would go over?

Mark said: I think that even though they were development blasts they were vertical risers.

Alex said: Yes, sometimes instead of our drives going horizontally we need to go upwards, vertical. That is to design and construct escape-ways so if there's a rock-fall underground or a fire or if a machine has gone on its side and people need to go into emergency mode there's escape-ways for them to get out of the mine. The tunnels are small at around 1.5m in diameter but big enough to get a person out of the mine safely.

Tim said: So, was it producing those that caused those additional vibrations?

Mark said: Yes, two of them were down here at Central School and the other one might have been at the pensioner flats.

Alex said: They're high because you only have one attempt to make it successful. So, it's all about your Maximum Instantaneous Charge (MIC) which is the weight of the explosives in a charge column.

Jane said: With all the yellow and red, from the last meeting that looks like it's grown quite a lot. You've been doing the survey lately on the mine that's going to happen out of town. Why hasn't Martha been included in that survey?

Tim said: Is that the Social Impact Assessment?

A few people said: Yes.

Jane said: Why hasn't Martha been included in that?

Donna said: Perhaps Kim you might like to talk about the Social Impact Assessment.

Kim said: The Social Impact Assessment is for the Waihi North Project. We need to assess any potential effects of that because it's a new project and that's what the survey is for. That is different to this because Project Martha has already been through a consenting process where any social or community impact would have been assessed as part of that. That's why it's a slightly different exercise.

Jane said: I've never had the option to do a survey on Martha at all.

Jeannine said: I think Jane's meaning the extension of the open pit. Is that what you were meaning Jane?

Jane said: Yes, and when they were doing this one originally I never had a survey that the community could go and fill out answering questions like this latest one. I've never had one or seen one advertised.

Kim said: I can't speak to the specifics because I wasn't here when we did the assessment for Project Martha but every time we go into a consenting process, especially if there's been a time difference between them, there are new ways of engaging and surveying people. The opportunity to participate in the development of the project would have occurred for Project Martha but I understand that perhaps they didn't have an online survey in the way we're using it for the Waihi North Project. But, that's not uncommon as a few years intervene and we're learning all the time.

Tim said: The process has changed.

Kim said: For example, take tonight's meeting. What we're finding is there are a lot of people who live in Waihi, and some people beyond Waihi, who have an interest in what we're doing. Not everybody's lifestyle permits them to come to a meeting such as tonight. So, we're constantly looking for different ways to offer people the opportunity. I don't know the detail of why we wouldn't have used a survey for Project Martha but it doesn't

mean there wouldn't have been an opportunity to get involved through us or through the public notification period for the project.

Jane said: The last notification I got was when Newmont had it, telling me when it was going to be, a parklike surrounding and how wonderful it was going to be, what they were going to do and when it was going to end. I've heard nothing since other than now you're going to expand the hole. Now I hear it's on hold.

Tim said: Expanding the hole is on hold? Clarify that.

Jane said: I hear that doing the underground under the conservation land is more beneficial.

Tim said: Wharekirauponga?

Jane said: Yes, and I hear that there's going to be no mining expansion of the hole for the next five years.

Kim said: Last year we announced Project Quattro which included a proposed expansion of the Martha pit and then a second open pit outside the town, a new tailings storage facility and some other infrastructure upgrades as well. But then during that period we undertook further exploration work at Wharekirauponga that led to the decision to go ahead with what we're now calling the Waihi North Project. So, because of the results of that exploration work we just slightly re-ordered ... because it is complex and there's a lot of moving parts. So, the proposal to expand the open pit is now the Martha Open Pit Project. You're right that currently the focus is on the Waihi North Project but the Martha Open Pit Project hasn't gone away as such, it's just that there's been a slight re-packaging of what we're proposing to do.

Jane said: Yes, but you're going to apply for a consent and we can go and object to it if we want. When is that going to be happening?

Tim said: For Waihi North?

Jane said: For Martha.

Kim said: Jane, we don't have an exact date for that yet because we've just explained our focus is now with that slight repackaging. But we're obviously very conscious that we don't want to create uncertainty by people not knowing when that might be. We're doing a bit of further work and it's a bit like a jigsaw puzzle how everything is going to fit together. We are hoping soon to give a further update on some estimated timeframes for the Martha Open Pit Project but while we fit all the pieces of the puzzle together we haven't quite got to that point yet.

Tim said: Thank you Kim. In these meetings we note things to come back on and I think we should note that in the meeting minutes for something that Oceana Gold can come back on.

*Post-meeting answer:*

*Kim to provide an update on this at next meeting.*

Dave said: Your man said that there were a few blasts over the 5mm parameter but I read on the board now that it's in compliance with a 95 percentile of the 5mm limit. What is the limit? Are you allowed to .... every hundred blasts ...rattle everybody's windows or?

Mark said: We can go above 5mm. We don't aim to.

Dave said: No, and it says it on the board "still in compliance with the 95 percentile". What is your limit? If your man down at the hole one day decided, "I'm a bit pissed off with the world" and drilled 16 holes and rattled half of Waihi, what is your limit? Where is your limit bruv? There's no limit.

Mark said: It's either at one monitor or you have a rolling average.

Dave said: 'How much can you exceed it by?' is the question. If the limit is 5mm/s and we exceeded it three times, it could be 10mm/s or 20mm/s.

Mark said: Well, there is no upper cap with a limit on it.

Dave said: There you go.



Mark said: Back when they were doing Favona they got an 8mm or a 9mm.

Dave said: This is it though bruv and you will be complying because you're in the 95 percentile.

Alex said: The cap is 5mm/second.

Mark said: It's a high level and then we have to send a notification ...

Dave said: It says on the board it complies with a 95 percentile. Five out of 100 blasts can be over 5mm.

Mark said: That's correct.

Dave said: Yes. What can the people of Waihi do if you decide to rattle the shit out of us five times out of 100?

Tim said: When I was looking at that before I wondered – there must have been an AEP payment.

Dave said: Yes, \$500 bruv. That is pittance. That's nothing. That's chicken feed. They're taking billions of dollars out of Waihi. Billions. Billions of dollars are coming out of that hole and Waihi is taking it up the arse.

Mike said: If you exceed that there is a punitive result. Hauraki District Council monitors don't they?

Dave said: Even if they go over the 5mm?

Mark said: If we go over the 5mm then we have to write a notification to the regulator (HDC) and explain how that happened and how we will try and stop that from happening in the future.

Mike said: So, there are repercussions.

Tim said: Dave, just to check though, I'm hearing them say that even if there's one that's over 5mm ... there's a "please explain" that has to go to the council.

Dave said: Yeah but they don't pay money to the council because it's in the 95 percentile.

Tim said: My next question is what happens if there are repeated over 5mm? What does the council do next?

Erich said: Nothing.

Tim said: Leigh, what do you say?

Leigh Robcke said: Well, we haven't had that situation to be honest and that's the truth. They have had the occasional exceedance over 5mm but they have been pretty rare.

Dave said: Your man here has just told us there's been three. So what consequence has that had?

Tim said: One answer at a time thanks Dave.

Leigh said: Only very recently in the Rex there have been three exceedances. Each time there is an exceedance over 5mm the company writes a letter which explains what happened, what the reasons were and what actions they will take to try and avoid that in the future.

Tim said: And then Leigh, if that still continued to happen, what would happen next?

Leigh said: There is a clause in the consent where they have to basically write a report, a more full report, about ways that it can be alleviated or mitigated in the future. There's no financial penalty but the company have been pretty good in terms of trying to comply with the consent.

Dave said: Well they've got to, it's the consent isn't it? It's a stupid argument.

Tim said: We're on the same page there. Erich, what did you want to say?

Erich said: There is nothing that the council can say, “We shut it down”. They can blast whatever they want. There have been more than three over 5mm. I can bring you the last four or five years all the data from Correnso.

Tim said: So Leigh, what would happen?

Leigh said: There is a review clause in the consent but we’re nowhere near that to be honest. I take on-board what Erich is saying that there are some operational issues sometimes around the notifications and what goes on the website but in hard terms the number of exceedances over 5mm, and I’ve only been in the job four years, is maybe four or five a year.

Dave said: But one is too many bruv. People are living here, we’re not a big red desert. The hole’s in the middle of town, you’re under peoples’ houses. Where do you live? Do you live in Waihi?

Tim said: Dave, your comment was, “There shouldn’t be one”. Leigh, your thoughts on that?

Leigh said: Well, the conditions are clear. There can be more than one.

Dave said: Yeah there can be five in 100.

Leigh said: They are the conditions that have been agreed to. The 95 percentile kicks in and that’s probably the more important measure.

Erich said: One question for the lady here. Do you build still, or try to build still, the new pit in Gladstone?

Kim said: That’s part of the Waihi North Project. We’re still proposing to do that.

Dave said: That’s going to be the new tailings dam.

Erick said: No, the tailings dam is different.

Kim said: I can quickly run through that even though this isn’t a Waihi North meeting. I will keep this at a high level and if you would like any more detail you’re welcome to come down to the shop because the information is all there and it’s on the website. Waihi North is the proposed underground mine up at Wharekirauponga in the forest park. There’s an ore transportation tunnel from there back to Waihi to transport the ore as the name suggests, a second smaller open pit which is the Gladstone pit, a new tailings storage facility, some upgrades to the processing plant and a rock stack which is a lay-down area for the rock because, as Alex said, we backfill so we need to store rock for a period of time. In a nutshell that is Waihi North.

Tim said: Thanks Kim, appreciate that. Are we back to Mark?

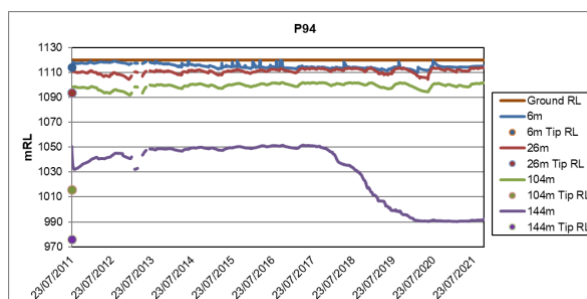
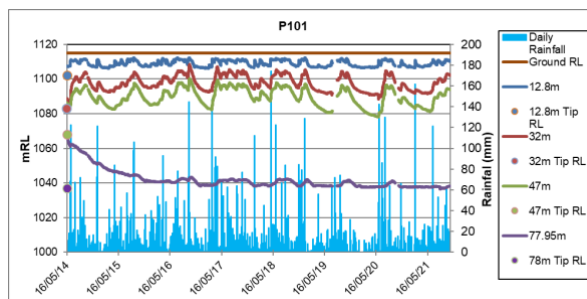
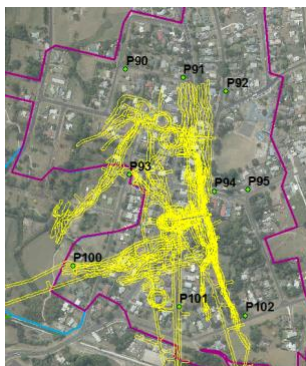
## Correnso/SUPA

### Dewatering

Established piezometers (e.g. P101)

- Shallow monitors respond quickly to rain
- Deep monitors slow response

Piezo P94 (est. 2011) deeper Andesite piezometer in touch with upper mining levels (deep piezo now settled, shallower piezo levels unaffected)



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INNOVATION PERFORMANCE GROWTH

OCEANA GOLD

Mark said: There are about 100 different wells around town where we monitor water levels to see if there is any change. (Slide 14) In the main part of Correnso you can see they're all different depths. These things called piezometers are monitored every month, which is a consent condition. We look to see if there are any changes in them, particularly in these deep ones. You can see in the shallower ones when it rains they go up and when there is a dry period they go down. Everything has been behaving normally all around Correnso except for this one which has been going on for about three or four years. This one (the purple line on the graph above) has dropped down which is fine. It is probably caused by dewatering of the mine because this one is quite close to mine workings. This is hard rock down here and then you've got sealing layers between and these are all the other layers, it's not affecting these ones here.

Tim said: Allen might be interested in this as a new resident. Are you saying that the water table levels through here are important because if they drop too much then what happens?

Mark said: It could cause the ground to have settlement across different areas because one bit is dryer and another is wetter.

Tim said: So, that is on the surface but with that purple line the surface is not affected because there's a hard layer of rock between?

Mark said: Yes, this is hard rock down here. You've got your softer soils at the top, then down here is the country rock that Alex was talking about earlier.

Tim said: The rise and fall at the surface is protected?

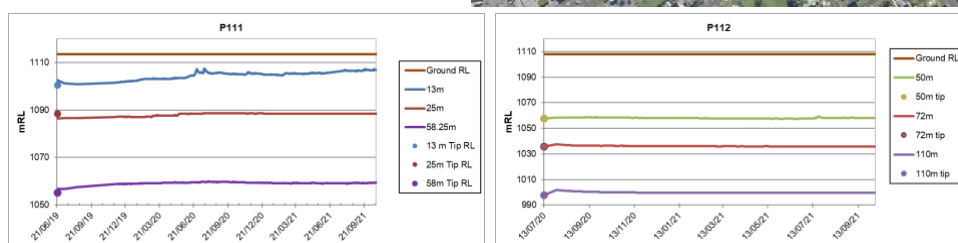
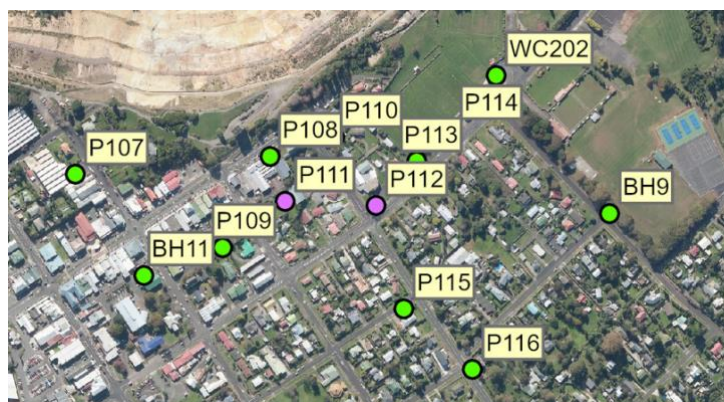
Mark said: Yes, that's right. In Waihi we have about four different water tables. Normally the andesite in Waihi is about 150m below when you start to get that hard stuff. This same slide was in the last couple of presentations because this is the only anomalous thing that we have occurring. It has absolutely no effect whatsoever on any of the residents in that area. Every six months we also have people surveying in these areas. We have over 350 settlement markers throughout Waihi and they get recorded to see if there has been any change in level. That is the Correnso one there (slide 16 below). They just look like little nails in the concrete around town. They are just starting the survey at the moment. They usually do them in November and May each year. HDC also do surveying with their people. We haven't had any anomalous settlement in the Correnso except for down over here back in May 2020. One of the markers is next to a drain which was all boggy, someone cleared the drain out which made it dry out and it actually settled down a little bit there.

## Martha

### Dewatering

Newly established piezometers, currently collecting baseline data.  
All now installed:

- P111 & P112 with multi-level dataloggers
- Deep levels stabilising and shallow aquifers responding to rain events.
- 3 extensometers installed. Used to detect any movement in rockmass.



Mark said: For the dewatering in Martha, as part of the new project we had to install 10 additional groundwater wells around here so we can monitor the water levels in this area. Obviously the mine is down here underneath this and up over here. We had some old ones, these are the existing wells from back in the 1980s, so we had

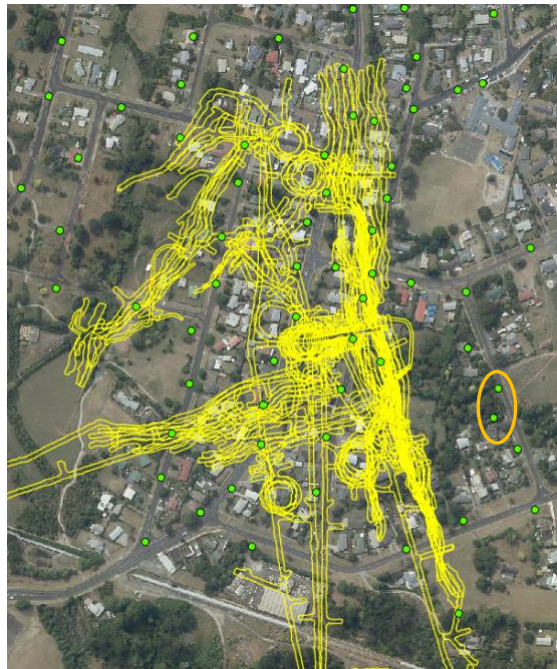


these 10 additional ones drilled and installed. It is just a reassurance when we monitor the water levels to make sure there is no change caused by the dewatering 200m below. Over here we haven't had any change, it's all very stable with not much happening at all in the water levels. Additionally the consent also required these things called extensometers to be installed. Three of these were installed in town as well. They have a bunch of cables that go right down into the ground and measure if there is any movement between the cables. There is one here at the Tenix Yard behind Liz's place, there's one right there next to the church and there's another one up here by the rugby ground. They have alarms that will tell you if the ground is moving. You might see a box on a pillar in the carpark and it's got cables going down, all under tension, recording any movement in the ground deep down. That was an additional requirement of Project Martha. We haven't done anything like that in Correnso. This area is quite well monitored.

## Correnso/SUPA

### Settlement

- No significant settlement issues detected for Correnso.
- Two minor anomalous tilt results; settlement marks noted as being adjacent to watercourse and potentially disturbed/drainage affected. Negligible change since May 2020 survey.



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INNOVATION PERFORMANCE GROWTH

OCEANA GOLD

## Project Martha

### Settlement

- No significant settlement issues detected for Martha
- Negligible change since May 2020 survey.



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INNOVATION PERFORMANCE GROWTH

OCEANA GOLD

Mark said: Those little green dots are the settlement markers. We haven't picked up any change in our settlement surveys.

Mike said: Jumping ahead now. When the pit closes, the mining under the pit closes, Correnso has finished, the whole lot, then the ground water will come back and create the lake that we were promised a long time ago. That didn't happen because at the time we were told the stratum between there and Correnso wouldn't allow it. We were told originally that there may be a stratum of rock that would act like a barrier so you could do Correnso without it being affected by any flooding in the pit. That's my recollection of it. Of course that couldn't work out, they found out it wasn't going to work. However, when the ground water comes back in and water pumps from the river to fill up the pit to create our lake, that will then also fill up all the tunnels in Correnso won't it?

Mark said: Yes.

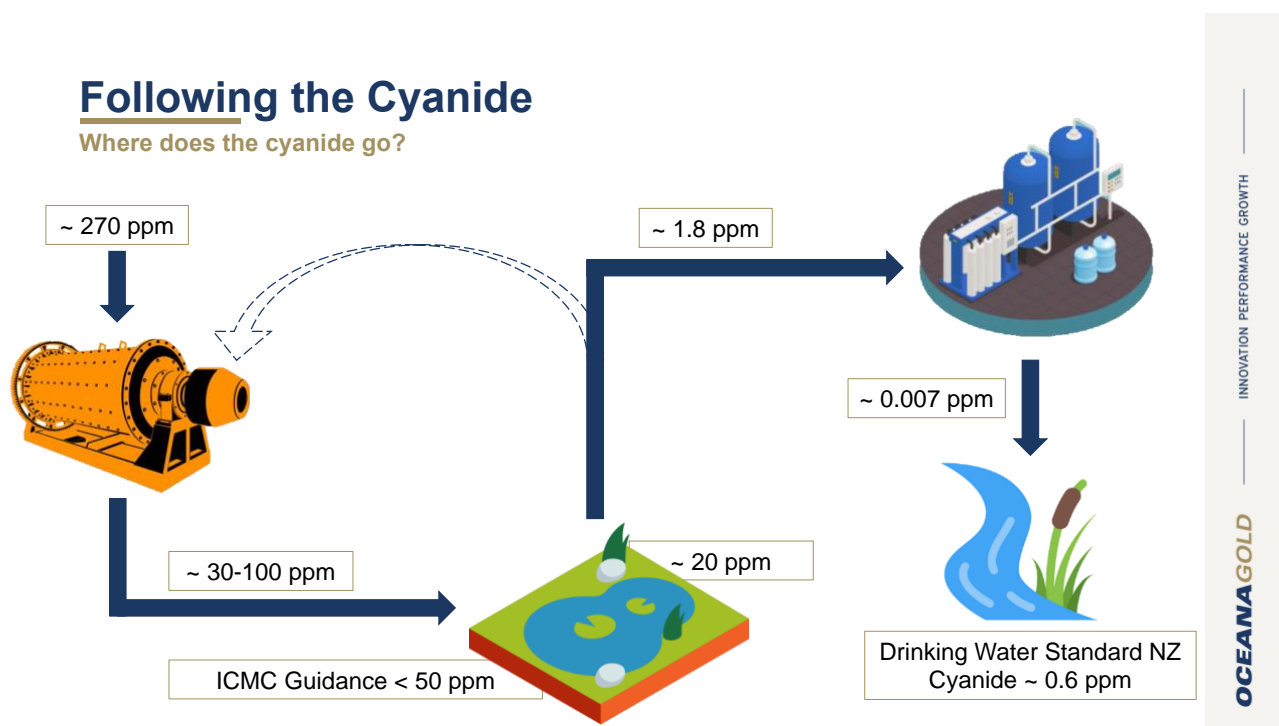
Tim said: Thank you Mark. Erich?

Erich said: Not only Correnso, every tunnel. They can't fill the pit until they are finished with all the mining.

Mark said: We can put bulk-heads in. They were thinking of doing that possibly for Favona which is a separate area. Favona is the original underground mine over by the mill. That area you talk of is the same groundwater system. That's why you can dewater here and it will bring the water level down in this greater area including Correnso and Trio.

Donna said: Now we're going to talk about the cyanide process and tailings and we're going to hear from Kirsty who is a qualified metallurgist.

## Sustainable processing



Kirsty Hollis said: I used to be the Process Manager here in Newmont days. I'm going to walk through the cyanide process as there are a few questions as I understand it about what happens to cyanide on-site. Effectively we dose cyanide into the process plant here (see slide above). The reason we do that is it is used to recover the gold and the silver from the ore. We dose at a rate of about 270ppm.

Erich said: Which type of cyanide?

Kirsty said: Sodium cyanide salt. Do you want to hear about how we recover the gold? Because that tells you a little bit about the cyanide.

Tim said: Yes.

Kirsty said: In processing plants you generally have two parts to a plant. You have what we call the liberation part of the plant and then you have the metal recovery part of the plant. Generally the metal or the mineral that you're trying to recover is a lot finer than the host rock that it's in. The host rock in our ore body is quartz and the gold is very, very fine. It's about 5mm which is barely talcum powder. The liberation stage of the process is where you see the mills, the crusher and it's basically breaking the rock down from large sizes to talcum powder. Effectively that then allows, when you move to the separation process, the gold to be visible for the separation process. Make sense so far?

Tim said: Yes.

Kirsty said: Separation is the use of cyanide and what happens is the cyanide dissolves the gold and forms a gold cyanide complex. Cyanide is also not specific to gold, it will also dissolve silver, copper, lead, zinc and a few others. We obviously have large quantities of silver but we don't have large quantities of those other metals in our ore body. It dissolves that, it goes into solution, then onto the carbon where we can separate the ground-up rock from the carbon which is of course a particle and that's where the carbon then goes into the gold room and we recover it off the carbon there. In the leaching tanks where we dose the cyanide you then basically have in your tank ground-up rock which we grind to a p80 of 50 microns, you have water and you have lime because we lift the pH up to between 10 and 11. The reason we lift the pH up to 10 or 11 is that cyanide is in solution at high pH. When you drop the pH below 8 that's when it gases off cyanide gas. We don't want that for two reasons. Obviously we don't want to harm anyone who works in the area because obviously cyanide gas can be highly toxic. Also, we don't want to lose the cyanide out of the tank because if it's in the air it's not in the tank recovering the gold.

That's basically what's in the leach tank and so those are the tails. The cyanide is consumed by the process so by the time it leaves the process plant it's already dropped to about 150ppm (parts per million). It is then deposited in the tailings dam and at that stage the pond on the tailings stand is down to about 20ppm of cyanide. The reason why that's much, much lower is firstly the cyanide molecule is basically carbon and nitrogen. It's not a stable molecule. It breaks down in sunlight, in air and in water. So, as soon as it's out in that pond, because you've got air and sunlight, it's breaking down. It breaks down to carbon dioxide and ammonia. The other thing is obviously we get a lot of rain in Waihi and most of the water in that dam is rain water, so it's diluting it down further still. Basically, it's going from the plant to the tailings dam and then some of that water is recycled into the plant. For the process plant we don't need to take water from anywhere else. All of the water in the decamp pond is recycled into the process plant. One of the things that we abide by is the International Cyanide Management Code. That has guidance that in your decamp ponds you should never be above 50ppm of cyanide. That is a global guidance and it's based on a wide range of wildlife. Individual people, animals, birds and fish have different sensitivities to cyanide. In general, for wildlife living on the tailings dams as long as you are below 50ppm they're going to be able to tolerate that level. Cyanide is not a cumulative toxin, your body detoxifies it very quickly. If you've seen over the shooting season we have lots of birds living on there and they're not going to drink it and have it accumulate in their system. It breaks down very, very quickly not like mercury or arsenic. It doesn't accumulate and breaks down to carbon dioxide and ammonia. Because we have lots of rain we keep the pond level low here. Any excess water goes to our treatment plant where we use peroxide to oxidise any remaining cyanide that's in the decamp pond before we discharge to the river. Our average that is discharged from the water treatment plant is .007ppm which is 100 times less than New Zealand's drinking water standard.

Liz said: Is there a timeframe where it goes from 270ppm to 20ppm in the tailings dam? How long would it take for it to reduce?

Kirsty said: This cycle is quite constant so from the time we dose the cyanide to the plant to the time it's pumped to the tailings dam is about 24 hours. The leach tanks have a residence time of 24 hours. Then on here, often it's a couple of hundred thousand cubes sitting in the dam and we've only got a max capacity in this water treatment plant for that water of 6000 cubes a day, so it could be sitting on there for a while. But when you put the tails in and measure the pond it's pretty instantaneous, in a manner of minutes rather than days. When we pump it through here, residence time in those tanks is half an hour to an hour.

Erich said: The original question was, what is in the ponds?

Kirsty said: I'll finish talking about this part of the process and then I can tell you what's in the ponds. Does that help?

Erich said: Yes.



# Cyanide Exposure in Everyday Life

## Cyanide

- Cigarette – up to 1550 ppm ➤ 1 Cigarette ≈ 221 L discharge water
- Almonds – 16 to 1215 ppm ➤ 100 g Almonds ≈ 23 to 1,736 L discharge water
- Cherry pips – 3.9 ppm ➤ 10 g Cherry pips ≈ 5.6 L discharge water



Kirsty said: I've got one more slide which gives you more information on cyanide. We are exposed to cyanide every day. Plants make cyanide so when you eat asparagus, broccoli, almonds, apricot kernels, it's a compound that is naturally occurring. One of the worst places that you will get exposed to cyanide is cigarettes which are very, very high. If you wanted to get the same exposure to cyanide as a cigarette you would have to drink 220L of our discharge water. That puts it in perspective as to the level of cyanide that we're putting into the stream. So you'd have to drink a lot of our water to be exposed to things that we don't have any issues with on a day to day basis.

Kirsty said: So, what's in the ponds? Not very much really. Basically all that goes into the ponds is the tails which is ground-up rock, lime, there is cyanide but as you see that breaks down. That's all that's in the tailings that we put in there and then the rainwater that is captured.

Tim said: Thanks Kirsty. Erich, your question about that?

Erich said: So, you put the sludge into the tailing, it sits there, I don't want to know what is in the water, what is in the sludge?

Kirsty said: Yes, so that's the ground-up rock from the ore that was taken out of the pit and the underground.

Erich said: And cyanide.

Kirsty said: No because the cyanide is broken down.

Erich said: No it's not. In the sludge is cyanide. And there is also iron in it.

Kirsty said: No.

Kirsty said: Yes. So, in actual fact if the cyanide that's in these ponds was sitting in that sludge we would see it in our seepage. It's not in our seepage.

Tim said: So, Kirsty it doesn't get retained in the sludge? It's just that 20ppm in the water?

Kirsty said: So, that's in the decamp pond. Basically the sludge will have no more than these levels. In fact, it's actually more likely to be this level that is contained in the sludge.

Tim said: So, it has that level of cyanide in it. Is that what you mean Erich?

Erich said: Yes, it's in the sludge. In the sludge is iron that comes from the mill.

Kirsty said: No, most of the iron is coming from the ore.

Erich said: Yes, and from your mill, the big steel balls which crush the rock.

Kirsty said: So, for every tonne of ore we treat we're probably adding about 1kg of balls but percentage-wise there is far more iron coming from the rock than there is from the balls.

Erich said: I want to know what is in this sludge, in the ground of the pond. All the numbers is rubbish. The problem is when this dam breaks the whole health of Waihi is contaminated and you can't do anything with it. If you don't believe me I can show you videos where dams are breaking and it's a waste-ground.

Kirsty said: I would say that that's another conversation in terms of the dam stability. That's nothing to do with this conversation.

Tim said: Can I ask about that though Kirsty? So, at the moment here you're saying it relatively quickly becomes 20ppm. If I pick up on Erich's question that it settles, dries out and the tailings storage facility gradually builds up, does the sediment that's drying out in amongst that tailings storage facility contain cyanide?

Kirsty said: Minimal amounts and it's still breaking down. We can see that the cyanide that's in the sludge, because as you say it's settling, the pour water that's in that sludge comes out and goes into our seepage. What's the cyanide levels in our seepage?

Mark said: Very low. There's nothing in storage two (TSF2) as that's not operating any more. There are small amounts in storage one A.

Tim said: Mark, do you have a ppm for that?

Mark said: Not off the top of my head but very low, close to detection limits. We have to sample that water before it goes to the water treatment plant.

Tim said: Can we get that number?

Mark said: Sure.

*Post-meeting answer:*

*CN (cyanide) forms stable iron and copper complexes at depth in the tailings that are adsorbed onto the tailings solids and don't move in the water.*

*Post-meeting answer:*

*TSF2 seepage = 0.02ppm total CN (note drinking water standards for CN are 0.6ppm). Yes 0.02 is the detection limit. All seepage is pumped back to the Water Treatment Plant and processed prior to being discharged into the Ohinemuri River.*

Kirsty said: That's coming from the pour water in the dam. That is a really valid point that Mark makes. Obviously we haven't been depositing tailings in TSF2 for many years now. What's really interesting about that is within six months of us stopping depositing tailings into that tailings storage facility, which was in about 2007, there was no detectable cyanide in it.

Tim said: Right okay. So back to you Erich. You're saying you're worried that there's this ticking time bomb?

Erich said: It is a ticking time bomb.

Tim said: I'm hearing these people say that it's really low levels and that it diminishes.

Erich said: Cyanide goes away combined with oxygen. In water there is no oxygen. In the sludge there is no oxygen. You've got it? Get a sample and analyse it.

Kirsty said: Yes, we do routine monitoring.

Erich said: No, no, no, no. You don't analyse the sludge on the bottom.

Kirsty said: The solids don't contain cyanide, because the solids are ground up tails. It can only be in the pour water and we sample the pour water that comes from the bottom of the tailings stand and that's saying that it's very low levels.

Tim said: Erich, what kind of sampling do you think would reveal the information that you're looking for?

Erich said: The sludge. Go the pond, put a 1m probe in, take it out, close it up and send it to a laboratory.

Tim said: And see if there is cyanide in there?

Erich said: Yes. Not only cyanide. Whatever is in there?

Tim said: So, what Kirsty and Mark have told us is that TSF2 stopped being used in 2007 and there is no indication there is cyanide in there.

Erich said: On the bottom it is still toxic.

Tim said: Do you have water running through tailings? Does it seep down and come out through the seepage?

Mark said: Yes, it has got that lake on top of it so it is saturated and so that's coming through the tailings.

Erich said: No.

Kirsty said: My feeling is that it's being flushed. The other thing is that we have recently been looking for alternative water sources because we have to take a minimal amount of water from the river for our allusion water process and we're wanting to look at alternative water sources onsite so that we're not having to take from the river, because obviously the Ohinemuri is over-allocated. The water on TSF2 is better than the water in the river.

Tim said: So, you'll be looking to use that?

Kirsty said: Yes, we're looking to use it.

Tim said: Erich, can we put some thinking into how we establish there isn't this ticking time bomb of cyanide?

Erich said: Analyse it. Pay for it.

Kirsty said: Yes, I've got no issue with that.

Donna said: Haven't we done that before Mark? Haven't we drilled into the tailings and taken samples?

Mark said: I'm not sure what depth or anything like that but I think it has been done before.

Tim said: I'm thinking that perhaps as a result of this meeting Oceana could think about what process would provide the best information, we'll put that in these minutes and the answers can come back at the next meeting. Would that be okay?

Donna and Mark said: That would be okay.

*Post-meeting answer:*

*Oceana have committed to providing a PowerPoint slide on this question at the next meeting including information about their sampling regime, how often it occurs and what results it shows.*

Erich said: After the processing you put mercury in there.

Kirsty said: No. That's a definite no. We do not use mercury at all.

Erich said: So, if you send what you get out there you send it to Australia?

Kirsty said: Basically the bars that we pour here are refined in Perth. Well, they were refined in Perth but I'm not sure.

Josh said: Yes, still Perth.

Tim said: So, Mark you're saying it's processed in Perth.

Mark said: Yes, there's no facility in New Zealand that can do that.

Donna said: No, we don't have a refinery big enough.

Tim said: Great. Any other questions for Kirsty? Mike.

Mike said: First of all, from one of your figures, all those people that smoke and then toss cigarette butts on the path eventually get washed down into the river so there is cyanide coming from the cigarettes particularly if there are heavy smokers. The other thing was, with that drinking water standard .007 ...

Kirsty said: Yes, that's what we're discharging.

Mike said: ... yes, that's what you're discharging, and I think you may have answered the question a little while ago, but that could be used for our water supply in Waihi because it is a higher standard isn't it? I know it's come up before and there's a philosophical reason why people don't want it, but it is of a higher quality that's being pumped out and it's also treated up at the treatment station anyway so there's another treatment there. If we get stuck with water, if you say you're going to need it anyway to avoid taking water out of the Ohinemuri, you would recycle that back through your plant anyway.

Kirsty said: That's only a minor ... the water that we take out of the river is a maximum of 400 cubes a day. Our discharge is 26,000 cubes a day. So, what we're actually taking versus what we're giving ...

Tim said: Great, Kirsty thank you.

## Social and community

### Notification of Blasts

The latest blast times and locations are available daily on our website: [www.waihigold.co.nz](http://www.waihigold.co.nz)

Production blasting is scheduled between 1.00 – 2.00pm (note: a blast may occasionally be delayed under specific circumstances)

Underground Development blasts may still occur, and due to their small size, will not be notified. These are smaller than production blasts and will occur between:

7.00am – 8.00am and  
7.00pm – 8.00pm

Please contact us on 0800 924 444 if you would like to receive txt or email notifications.

In-home blast notification devices can also be provided for residents.

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OCEANA GOLD

Donna said: (Slide 20 above) You can look up all our blast times and blast locations on our website. Some people get confused and go to [www.oceanagold.com](http://www.oceanagold.com) but that's our corporate website. Here at Waihi we encourage you to go to [www.waihigold.co.nz](http://www.waihigold.co.nz) because that's where you will find all the information about what we're doing here at Waihi. So, you can go there most of the time but sometimes of course websites go down, so we do apologise for that inconvenience, but most of the time that is out of our control.

Production blasting is always scheduled between 1pm and 2pm during the day. Sometimes we get delays and I know that recently we've had a few and I apologise for that. Sometimes it can be things like they come across a problem piece of ground that they weren't expecting and that can create problems for the blast crew. We can also miss the time between 1pm and 2pm because of mechanical breakdowns. A couple of times the drill has broken down right in the area where the blast is going to be so they have to get another machine in there to tow it out and it can delay blasting. There are a lot of factors that can delay a blast and we always try our best to get that blast between 1pm and 2pm but unfortunately sometimes we go over that. I like to think that we're pretty good at letting people know when the blast is going to be late. I text quite a lot of people, we email them and we phone some people that don't have either a mobile or an email address. On that point if there is anyone here who isn't getting a text, an email or a phone call and they wish to be notified of blasting times just let Jeannine know before you leave and she'll have your details on the sign-in sheet and we'll add you to the list. We don't notify people for the development blasts, which are the smaller blasts that create the tunnels not the stopes, we do the bigger blasts during the afternoon. So, we don't notify those and they're between 7am and 8am in the morning and 7pm and 8pm in the evening. We only notify for the bigger production blasts that most people feel or hear. If you're not receiving any notification and you're new to town and you want to, we also have what we call a blast notification device – Jeannine's holding one up there. That's a little machine that you can plug in and just before the blast, most of the time, the notification will play a tune. I think that one plays an Elvis Presley song.

Jeannine said: I think it does.

Donna said: It's designed to take away what's called "the startle factor". So, if you live on your own and you would like to know that we're about to blast it will play music and you'll think, "Oh it's a blast", instead of sitting there and you might be doing something and you forget what the time is and some people get a fright. So, that's to help people, to notify them that the blast is going off. For a lot of people that's all they need, they don't need to have a text or an email or a phone call because they know that those blasts go off between 1pm and 2pm every day and when the music plays they know that the blast is about to go. So, if anybody wants one of those, if you're new – Allen, if you'd like one of those you're quite welcome to get one, we can drop one off to you and show you how it works.

Alex said: Just on the blast at mid-shift, historically with the 1pm to 2pm time period we've been firing most of our shots towards the 2pm mark. We've changed that because I don't like asking for extensions and stuff does happen as you say and we need to give ourselves more time so we've brought that forward to aim to fire at 1pm instead of 2pm.

Donna said: Thank you for that.

Alex said: So, there should be a shift from more firings in the 1pm to 1.30pm window.

Donna said: Excellent.

Erich said: That's great, you changed it. 1320 today you changed it. You still get late ones. And to your website, get a new one and get a new computer and with the blasts if you don't press a button we don't get the music.

Donna said: Of course if anyone has any questions or concerns they can get hold of us on the community engagement line which is 0800 924 444 and generally you'll get me.

## Community

### AEP Payments

For the 2021 January to June payment period, there were 224 recipients paid a total of \$117,718.35 through the AEP.

Next meeting scheduled for March 2022.

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INNOVATION PERFORMANCE GROWTH

OCEANA GOLD

Donna said: Just another thing on the AEP payments for the January to June period. I apologise for them being a bit late but they eventually got out. It was a big job this time because for the first time banks were no longer accepting cheques so we had to get everybody's bank account numbers. It was a huge process but well done to Jeannine, she got it done and I think she did a very good job at getting that organised for everyone. For the period January to June of this year there were 224 recipients and they were paid a total of \$117,718.35.

Erich said: The payment is from 1 January to 30 June. I received a letter 60 days later (after the payment).

Jeannine said: We can't help the mail sorry.

Erich said: No, not New Zealand Post. Somebody put it in the letterbox, 60 days later on 7.9.21.

Jeannine said: We didn't hand-deliver any letters. They all got posted by the mailman.

Erich said: I'd like to know how you do this? Where am I related to which monitor? Can you explain this?

Jeannine said: I can't but I know that there isn't just one monitor that they use for the calculations, there are two or three.

Tim said: There will be a paragraph that we can just post into the minutes.

Donna said: Yes I can do that. We'll get some information together.

*Post-meeting answer:*

*Refer to website [www.waihiGold.co.nz](http://www.waihiGold.co.nz) Community – AEP. Blast vibration: To qualify for AEP requires two or more blasts in one month with ground vibration equal or greater than 1.5mm/s in magnitude.*

Donna said: All our monitoring is done externally from Australia. We have no control over vibration monitors. All we do is get the readings.

Mark said: Yes we get them (the monitors) calibrated and make sure they are operating correctly.

Allen said: These AEP payments, are they for the people with houses directly over the mine?

Donna said: The best thing for you to do would be to come down to the project office between 10am and 2pm Monday to Friday, next time you're in town. It's next to the Café Banana Pepper. Come in there because Jeannine manages the AEP and she'll be able to go through it with you.

Jeannine said: It's what the monitors tell us about which properties are affected by the vibration. We don't know that until the six months is up so we've got to wait for that period, January to June and then July to December. So, we won't know the next period until we get to January.

Allen said: But you must know areas that aren't going to be affected.

Donna said: Not until the end of the six months because it's paid retrospectively. So when we get all that data in it gets calculated and worked out by a brain far higher than mine and that's when we know. It's actually the property that qualifies, not the resident. It's not just if your house shook, it's the distance of the property from the blast and it is an algorithm that they use to work it out. It's quite complicated and that's why a lot of people have difficulty understanding it but it's a very fair method because the people that are most affected are the people that get the better payment and that's the way it should work because they're having the biggest effect on their amenity. I think it's a very fair system.

### **Next meeting:**

Donna said: We're hoping, all going well with Covid, that we can have our next meeting in March. It will be combined both Project Martha and Correnso but we will certainly communicate that as we have in the past.

Helga said: Is it possible to do it one hour earlier?

Donna said: We've done it at 5.30pm because the feedback we had earlier on was that people who work can't come. So, that's why we made it 5.30pm to be fair to everybody so that those who work have time to get home and get changed and come.



Helga said: Except its dinner time.

Donna said: I appreciate that.

Tim said: Did we talk at one stage about alternating?

Donna said: Yes we did. Jane, you work don't you so it would affect you wouldn't it if we changed the time?

Jane said: Yes, I'd have to finish early.

Donna said: Yes, you see this is the thing and Jane might only be one person but she's important, she lives in the project area and she needs to come and she wants to come so I think that one night in six months starting at 5.30pm ...

Tim said: I just want to check in on a couple of things. Are there any other general comments or questions?

Dave said: Yeah bruv. We were talking about that survey.

Tim said: The social impact assessment?

Dave said: The social impact assessment. Why are they surveying people in Te Aroha? What impact has the mine in Waihi got on the people in Te Aroha? I think 95% of the people from Te Aroha haven't even come through Waihi in the last year so why is that getting surveyed? It's on the map mate, he's got the map in his pocket. Why don't they just survey the people of Waihi?

Jeannine said: We can find that out and put it in the minutes.

*Post-meeting answer:*

*The purpose of the SIA is to identify and fully consider the potential positive and negative impacts of the proposed project on the local and regional social environment. The overall intention of the SIA is to ensure that the negative impacts are identified, understood and effectively avoided, remedied or mitigated, and that potential benefits of the project are acknowledged and enhanced where possible. We know from our existing baseline data that a large portion of our suppliers and staff are located within a 30km radius around Waihi. A 30km radius, or the area within 30 minutes driving down from the centre of Waihi Town is particularly relevant when considering the local economic and employment catchment area associated with the Waihi Gold Mine. So that the potential impacts of the project on this area (if any) can be fully understood it is important we capture the perceptions of people living in this area.*

Tim said: A general question from me is about the meeting. Was the meeting useful?

Dave said: Phhhhh. It's probably an F but I'm trying to be PC.

Tim said: Thank you for your respect.

Dave said: I mean it's just bullshit bruv. The mine is just ... pushing the people of Waihi up against a wall and giving it to them up the jacksie.

Mike said: I thought it was useful. There was a lot of information I hadn't realised although I've been to other ones before as you know. I found it very useful and it's not propaganda, I've looked at the scientific evidence.

Dave said: You're saying that the stuff that they print in the paper like the mine pays \$300,000 in rates and if the mine sold all their houses those rates would still be getting paid so essentially the mine has no benefit to this town through paying rates.

Leigh said: I think probably the council has to take some of the responsibility for that (the mine buying houses) because we put conditions in the consent where if the company is under peoples' houses they have an option.

Dave said: They have to buy it. I understand that bruv. But don't print in the paper how the mine pays all these rates. The only reason they pay the rates is because they bought the houses because people were shaking on top of them and not only that they're selling the houses at a profit.

Tim said: Thanks everybody, thanks for your attendance.

Donna said: Thanks for coming.

The meeting closed at 7.23pm.

**Next meeting: Thursday 3 March 2022 at 5.30pm  
(Combined CEPA/SUPA and Martha meeting)**

<b>Attendance register:</b>	
Dave Wellington	Erich and Helga Schmidt
Leigh Robcke	Allen Brownlee
Jane Murray	Liz Cannell
Mike Hayden	Jeannine Wiki
Kirsty Hollis	Josh Smith
Alex Watkins	Donna Fisher
Mark Burroughs	Kim Calderwood
Tim Clarke	Louise Fielden