

# Correnso (CEPA) / Slevin Underground Project Area (SUPA) Community Meeting

**Wednesday 18 September 2019**

The following is a record of the CEPA/SUPA community meeting held at 4pm on 18 September 2019. 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 as the independent facilitator, and welcomed everyone to the 16<sup>th</sup> meeting (for CEPA) and the 4<sup>th</sup> meeting (for SUPA) in this process. He explained the meeting is focused on the chance for residents in the East End of Waihi to be able to ask questions and hear updates in terms of the mining process and progress being made in the CEPA and SUPA areas.

Tim explained that the meeting is being recorded so that he and Louise Fielden (independent secretary) can prepare accurate minutes of the meeting. The recording of the meeting is available to attendees who are able to request a copy via a DropBox link. A printed copy may also be requested and will be available electronically.

Tim requested everyone to introduce themselves prior to asking any questions so we can make sure we respond to the correct person. Some questions may need to be deferred so a full answer can be provided (either in the minutes or directly to the person concerned).

Tim introduced Bernie O'Leary, General Manager of Oceana Gold and then requested all attendees to introduce themselves to the meeting (see attendance list at the end of these minutes).

## Matters raised at the last meeting

### Items from last meeting

#### 1. Stained concrete on ground on drill rig site adjacent to rugby field.

This is known as bit lube – a vegetable oil.



#### 2. AISC (All-in Sustaining Cost). What does this mean?

All operating costs and capital costs required to sustain the gold production.

Tim said: There was a question about some stains/marks on the concrete near the drill rig by the rugby field.

Donna said: Jeannine and I went and had a look at these. The stains are from when the rig was there, they are vegetable oil based lubricants, not anything nasty. Sometime this week they are going to clean up what they can, but they are not harmful and haven't seeped anywhere but there.

Tim said: The second question was about the proportion of the overall return from the mining that the AEP represents. There was a comment at the last meeting that it was 0.01% of the overall and Kit said that it is a bigger proportion of the All-In Sustaining Cost (AISC).

Bernie said: The AISC is an industry standard measure of cost for a mining operation with all of the contributory costs being accumulated. Normally it's expressed as a dollar per ounce figure. The gold price is per ounce of gold produced, the gold sold, and the AISC can be represented as an all-in cost per ounce of that gold production. In other words if you're getting, say, \$2,000 per ounce for your gold, your AISC is all of your operating costs and all of your sustaining capital costs, like when you buy new equipment. That might total, for example, \$1,500 or \$1,800 per ounce and you subtract that from the gold price and that is how much margin, or money, you are generating.

Tim said: Kit's point at the last meeting was that with the AISC taken into consideration, the AEP is a much bigger proportion of the return to Oceana shareholders for the gold that's extracted here. Have I understood that correctly?

Bernie said: The AEP was nearly \$238,000 for the first six months of this year. If you annualise that it's \$480,000 or close to, and our costs are over \$100 million per year so if you figure that out in percentage terms it could be around 0.05% of overall costs. Those are rough numbers but it gives you a feel for how much it is.

### **Potholes Morgan Park**

Tim said: The final question from the last meeting was about the potholes in Morgan Park. Max, have you got some feedback for us on that?

Max said: Yes, it's on council property. The area is administered by Sport 'n' Action who are doing the development of Morgan Park. Sometimes when I ask who is supposed to maintain it council say, "It's not us" and then I ask Sport 'n' Action and they say, "Well, surely that's council". So, it's really quite simple, a council-paid person filled the holes and they filled them again about a month ago. They won't be sealed because it would be a waste of money when part of that area will be ripped up and re-sown with grass.

Tim said: So that's being maintained and has been done twice since the last meeting?

Max said: Yes it has.

Erich Schmidt said: The potholes are 10cm deep.

Max said: I'm quite happy to go down there with Erich to check the holes. I personally filled the holes so I know they are not 10cm deep, but I'm quite happy to go down there and he can show me the holes.

Erich Schmidt said: Yes, sometime tomorrow.

Max said: 9am tomorrow?

Erich Schmidt said: Yes.

Max said: I'll be there.

*Post-meeting update: Max met with Erich Schmidt at the carpark – there was one hole that Erich pointed out about 3.8cm deep. Max filled it in as he had all the others previously. Council will not be resealing the carpark but will be filling in any further pot holes periodically.*

Brian Powell said: Are those the same holes the guy broke his neck in? A guy was riding his bike through Morgan Park, went into a hole and broke his neck. I think he's still in a wheelchair.

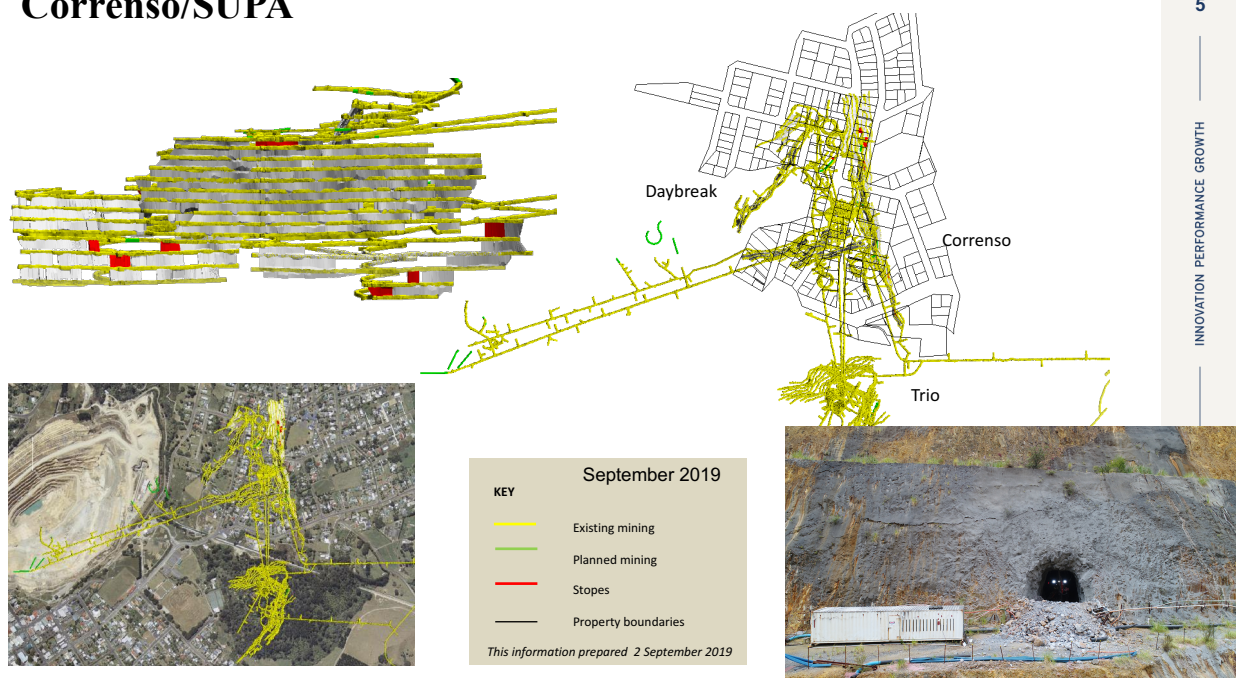
Max said: No, totally different.

Jeannine said: It's not the same.

Tim said: Are there any other questions about the Q&A's before we hand over to Bernie to start talking about the project update? Bernie, all yours.

## Item One: Project Overview

### Correnso/SUPA



Bernie said: Thank you. The top left (of the slide) is a long section of Correnso showing the different levels. For those of you who are new to the meeting, we mine out roadways about 15m apart vertically and 5m x 5m in dimension and those roadways become the drill platforms from which we drill vertical holes that we put explosives into. Those roadways are in the ore, in the gold-bearing rock, we blast and then use a front-end loader to load out the broken rock. That broken rock is put in a dump truck, trucked up to the surface, then through the processing plant and the gold is extracted. So, you're all experts now, I've given you the run-down on the whole cycle and the way it works – drill, blast, load, haul, process. Where we've been mining in Correnso is in the lower sections mainly for the last six months. The way our mining method works is that it's best to work from the bottom up. We develop all those roadways first and then we start to mine bottom up because we backfill all of the voids that are created from the rock that's taken out, to keep it all tight and make sure there's no settlement on the surface.

Brian Powell said: How do we know that's being done? Is there an independent body that checks that is done?

Bernie said: We produce surveys.

Russell said: Every year Peter Fuller, who is (an independent expert from Australia) commissioned by council, comes over and does a full tour of the mine underground. The primary thing is we can't not do it, because we go to the bottom and we're mining on top of our fill. If we don't backfill we can't go up.

Bernie said: It becomes the platform on which to work. So all of the equipment works on top of that backfill.

Brian Powell said: So you can't fill two ends up and leave the middle?

Bernie said: No, exactly.

Bernie said: This (slide) is a plan view showing Correnso, this is the long section and this is Trio underneath Union Hill. We have been working at the lower levels of Trio taking out some gold there. Some of you might recall when Trio was mined that there was quite a lot of water in the lower levels and so we've been able to take the water level down with the Correnso mining, down below the lower levels in Trio, so we've been able to go one level deeper there. Correnso has a limited life left, probably about the middle of next year is when we'll be finished in Correnso.

These two lines here (on the slide heading west south west) represent the Martha drill drive area. That's in the bottom area of the same two lines, they skirt along and underneath the Martha open pit and they are drives that are about 120m apart vertically. They are the same roadways I talked about, 5m x 5m diameter, and they allow us to create exploration drill platforms to drill long holes, to radiate holes down and out to try

and prove where all the gold is (or isn't) underground. That's a necessary first step – before we go mining we need to know where the gold is and to know where the gold is we drill holes, we take those core samples with Alton's exploration diamond drill rig. They cut out a core. On the back wall, there we have a photograph of a drill rig, and (holding up a piece of core) we've got a piece of core here – so that's what those rigs are doing. We've got six of those drill rigs currently working within those two drill drives so they're all Alton drill rigs with their employees. They've been very, very busy defining where all that gold is for the Martha underground. That will be ongoing, there's lots of exploration drilling left to do there. So that's another activity that we've been doing over the last six months or so and will continue to do.

You may recall earlier this year we got the resource consents for Project Martha which is the Martha underground mine and the cut-back of the Martha open pit, the North Wall cut-back, that's Project Martha. We got those consents granted by the councils on 1 February. As part of the resource consent conditions we had to put together a number of management plans before we could start. They covered things like how we are going to manage the voids which we were just talking about, the backfilling process, the pit wall stability, how we manage blast vibration, dewatering, settlement, there's some closure aspects as well that were covered. I think in total there were six plans that we had to put forward to council weren't there Russell?

Russell said: Six main ones, and three other minor ones as well.

Bernie said: So, those plans had to go to council for approval before we could start on the Martha underground project and it was May/June when we put those plans in and we actually crossed the boundary into the Martha underground area on 27 July. Correct Leigh?

Leigh said: Yes.

Bernie said: We've been mining in the Martha underground area now for nearly two months, about seven weeks – for all of August, the end of July and part of September. So, that's exciting for us starting that new mine. There's been quite a number of blasts. I don't think any of them have registered on any monitors yet, is that correct Russell?

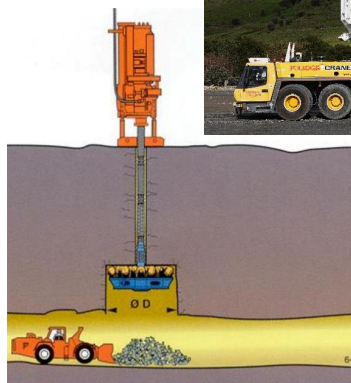
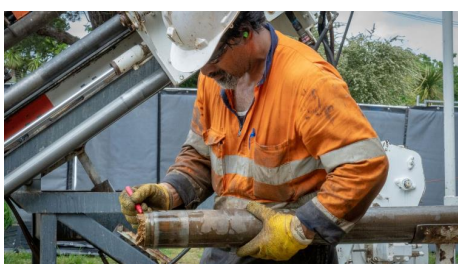
Russell said: That's correct. The only time I've been able to monitor any blasting from those drives was when I deliberately lowered the trigger level on the monitors to the lowest they could register. I finally got a couple of results but they were 0.2mm to 0.3mm per second.

Bernie said: So, fairly low level. This photograph here (bottom right of next slide) is the breakthrough adit, or portal, into the Martha open pit. As part of mining the new Martha underground mine we need to get more air in there because we've got a bigger working area. What this allowed us to do, when we broke through into the pit, was to be able to suck more air in through the opening on the Baxter Road side which is where the current portal is, where all the personnel and equipment go in and out. Having another opening and putting exhaust fans in that opening sucks more air in at the entrance where we intake all the air. So, that's given us an increase in ventilation and air supply underground by about 30% which is very positive. That happened earlier this year, in the first six months.

## Project Martha



Project Martha drilling continues behind Gold Discovery Centre and near Cornish Pumphouse



Raise borer underground working on drilling ventilation shafts and pumping wells



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Bernie said: We continue to drill on the surface. We currently have one drill rig behind the Gold Discovery Centre, which has been there on and off for the last year and a half, and there's also one in front of the pump house on the edge of the pit. That was there last year and it's back again. So, we've got those two drill rigs on the surface as well as the six underground that I talked about. One of the other pieces of equipment that we have underground at the moment is the raise borer. This allows us to connect those two levels (on the previous slide) which are 120m apart. We're connecting them with a shaft and the raise borer allows us to bore a shaft 4.5m in diameter. That's quite a big project. It's been done before obviously. The ventilation shaft on Union Hill was done by a similar machine. This is done in two stages. The first stage is to drill a hole about 30cm diameter between the two levels. The drill rig is on the top level and puts that drill hole down to break through to the bottom level. That's fairly straightforward drilling, there's nothing too high tech about that. When that pilot hole breaks through to the level below the contractor puts a big reaming head, 4.5m in diameter, on the bottom of that pilot hole drill string and then the drill rig spins or rams its way back up and back-reams up the hole and reams out a 4.5m diameter shaft. We have finished that pilot hole so probably within the next week we will put the big reaming head on then start the back-reaming process to ream out the ventilation shaft and this gives us a connection for the air flow between the two levels. Ventilation in a mine is all about creating a circuit. What you try and do is set up fans to exhaust, or suck, and that draws air in from one location and then you have to get it to go down all the levels and then back up through the shaft and back out through the fan that's sucking the air in and back out again, creating a circuit. The ventilation shaft is key for that.

The other thing we'll get that piece of equipment to do is drill some pumping wells underground. You can see a schematic here (see slide above) of the raise borer on top, the pilot hole with the reaming head on top, reaming out the large diameter. When it finishes that job we're going to use that drill rig to drill some holes and intersect some of the workings of the old-timers. Some of the old stopes that were left behind weren't backfilled and are quite deep and full of water. Ideally we'll hit the water and be able to put a pump down and pump some of the water out to help us with the dewatering of the mine at the lower levels. So, that's something else that's planned for Martha underground once we finish the ventilation shaft.

Glenis said: When that reaming head goes on, will that have any vibration?

Bernie said: Only locally Glenis I think, there won't be any vibration of a magnitude to be felt at any of the surface sensors. Unless it gets a great big wobble on and loses its rotation. No, there won't be anything felt at the surface.

Trevor said: Where's the drill situated in Waihi? On the surface?

Bernie said: No, it's located underground, about 150m below the surface. You won't be able to see it, you have to visualise it.

Paul said: What sort of speed does it drill at Bernie?

Bernie said: For a full 12-hour shift it drills about 10m to 15m vertically, so it's fairly slow.

Paul said: I guess I'm asking how long it is operational for.

Bernie said: To drill the ventilation shaft would probably be one to two weeks for the pilot hole and then maybe two to three weeks for the back-reaming because it's slower because of the bigger diameter and more rock to cut. So, all up it will be about a month to do that ventilation shaft.

Glenis said: What happens to the rock?

Bernie said: The rock from the pilot hole and the raise-boring falls to the bottom and then we get our bidders, our loaders, and they load it onto the trucks and then we use it either for backfilling the stopes that we create or maybe for roadways and other things.

Trevor said: Is that anywhere near the old mine workings?

Bernie said: Close. There's old mine workings all in and around that area so we've had to make sure that we don't intercept any of them when we're drilling that shaft.

Trevor said: With the blasting in the old mine, would the rock be not quite as hard, more fractured?

Bernie said: Potentially there will be some weathering if it's left exposed. Not all of the old workings are backfilled and if there's water and air exposure there could be some weathering. But that's generally only on the surface, so not a lot.

Trevor said: Thank you.

Sel said: Are any of these drillings, the general workings, near the pit?

Bernie said: Yes there are quite a few under the pit. You have to remember, in terms of elevation, going down this way, the old underground mine that the old-timers worked between the 1890's and the 1950's, went down to about 600m below the surface and the pit's only 250m below the surface. So there are lots of old workings below the pit.

Sel said: But you won't be taking the old slip part out through those egress holes?

Bernie said: Potentially that's a possibility in the future but at the moment it's difficult to do that because with the slip we lost the road on the North Wall. So, we'd have to get in there and mine out the top part of the slip and re-establish that road. Potentially, and it will take years to know, but that's a possibility to come out that way.

Tim said: So, just to make sure I understood the question correctly, Sel you were asking whether some of that slip material could be taken out through the new holes?

Sel said: Yes.

Brian Powell said: When do you think you're going to change Cambridge Road?

Bernie said: We haven't got a firm plan on that yet. It's likely to be within the next two years is all that I can say at the moment. We're still working on that.

Brian Powell said: So basically you are going to bring that wall back towards Cambridge Road and then change the top of Cambridge Road aren't you?

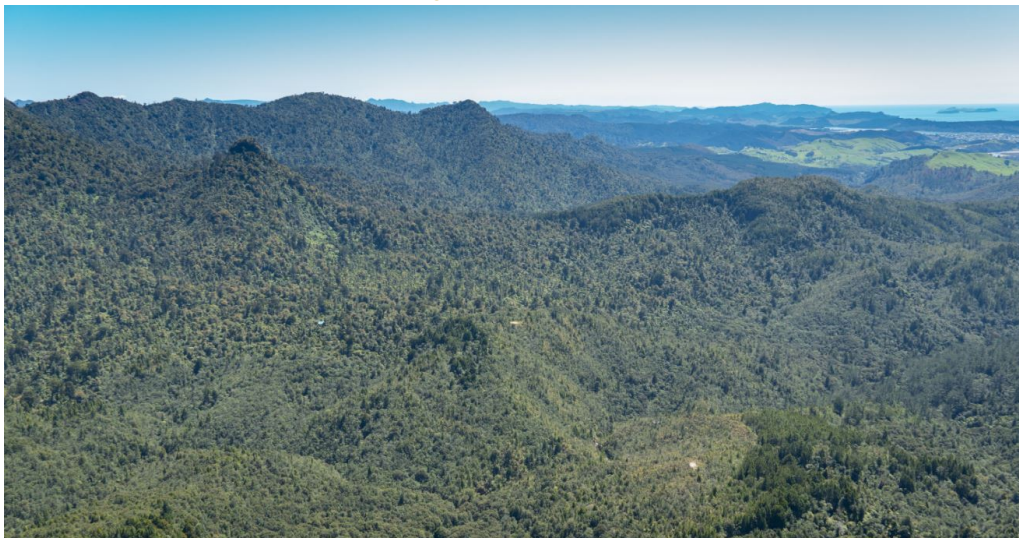
Bernie said: Yes, there's a plan that's been submitted to council for that work and it involves subdivision works, it has to be approved by roading engineers, it's basically a realignment of the kerb and all that detail was submitted as part of resource consent process.

Brian Powell said: I just haven't seen any plans of what it would look like when it's done. I think a couple of houses are going too aren't they, on that corner? And then are you going to go through on that flat bit so you can come back on that corner of Cambridge Road?

Bernie said: In simple terms we're just cutting the corner from where it is now, moving it back 20m or 30m through where two of the houses are currently. There's two roads there – Cambridge Road which goes up the hill and then turns into Bulltown Road as you come around the corner, and it changes direction. There's a realignment that's been consented and approved to realign the corner further away from where it is now to allow that North Wall slip to be excavated fully.

## Exploration

Near mine exploration: Wharekirauponga



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Bernie said: I just want to quickly talk about Wharekirauponga which is our project on an exploration permit 10km north of Waihi. This is a photograph of where it's at. It's a bit hard to make out where we're drilling there and you have to look fairly closely but there are several drill sites that we're drilling from. We've had two drill rigs there for most of the year. The reason I say most of the year is that over summer we were limited because we couldn't get enough water from the creeks up there to allow us to drill, with the lack of rainfall over the summer period. So, we really didn't get started properly until March/April, still on and off, but there was plenty of rain over winter so we've had two drill rigs there over winter drilling away. What we're looking at potentially is an underground mine and we certainly won't be looking at any surface mining there. It is conservation land and with an underground mine the only thing that would come to the surface, and it would be temporary, are the ventilation shafts that I talked about, putting a cap on the top and that's all that anyone would see. You wouldn't even notice it. So, we've still got a lot of drilling to do, a lot of planning to do, there would have to be a full resource consenting round before we even thought about a mine up there. No doubt Kit has talked about this before and given an update. The main message from me is that we are continuing to explore, we're having pretty good results and we've still got two drill rigs up there.

Brian Powell said: Is that somewhere in from the Whiritoa Gorge? Parakiwai?

Bernie said: Yes, that's on the eastern side and to the west of it is the old Golden Cross area, so it's sandwiched in between those two.

Tim said: Bernie you're saying there's a lot more drilling to do. Is that exploration? Sussing out whether it's even worthwhile proceeding?

Bernie said: Yes, that's correct. We have to build a business case to see if it is worthwhile but our results have been really promising so far.

Bernie said: That's the camp I think. What we've got up there Tim is a camp, so people actually stay up there. All the people and equipment are taken in by helicopter. We have two drill sites and a helicopter pad.

Brian Powell said: That's Whangamata up to the top right is it?

Bernie said: That's Whangamata, so it's about 10km north of here "as the crow flies", so not very far at all.

John said: Geographically where is that? Is that Slipper Island in the background?

Donna said: Yes it is Slipper Island.

Bernie said: If you leave Waihi and drive towards Whiritoa and look up to the left in the hills, you can see where the bush starts, that is about the edge of where the conservation land starts, so it's probably another 5km north of that, so 10km in total from here.

Mike said: Bernie would that be accessed from here underground?

Bernie said: We're still looking at all the access options and that's one of them, tunnelling all the way.

Vivienne said: How did you find it? How did you know it was there?

Bernie said: That is a very good question, there's no gold outcrop there with a label on it saying, "Drill me, there's gold here". You've actually got to discover it and we have a number of geophysical techniques to discover gold which the geologists call "blind" ie underneath a cover of rock and buried deep. You can't see it on the surface. Those geophysical techniques include putting an electric current through the ground to work out what ground is resistive and what ground is conductive. You can also set up an electromagnetic field and work out what rock is magnetic and what rock isn't. There are a number of those techniques that we can use to look for what the geologists call anomalies. But you still have to drill to test your theory. Geology is a lot about theories – we think there might be something there, but until you take a sample deep in the ground and take some of that core and get it tested you don't prove your theory. Many a good theory has been disproven by drilling and taking samples and conversely the theory can be proven by taking those samples.

Glenis said: Do you use an aeroplane to do that?

Bernie said: If it's aeromagnetics it's an aeroplane. The electrical resistivity testing is all on-ground, so you set up a generator with wires on the ground and set up an electric circuit with sensors. It's complicated and there's an acronym for it called CSAMT which is some sort of controlled source amplification. (I am not a geologist and) I don't pretend to fully understand it but if you're interested we'd have to get a geologist here

to bore you for half an hour on how it all works, it's highly technical. But it seems to work, sometimes, and then other times it doesn't work. That's exploration, a lot of hit and miss.

Tim said: How much time? How much more work is there to even determine if there's a case?

Bernie said: We'll have a much better sense in the next 12 months of what we're dealing with. We've already got what's called a "resource" up there which is a pretty strong case and we have announced that publicly. A gold resource is a classification you put on it if you've done the studies and you can feasibly make money out of it. But it's not a reserve yet, the next step is to turn it into a "reserve" which is a higher confidence level.

Anna said: So you have consent obviously and nobody else can turn up there?

Bernie said: Yes we do. The Crown Minerals Act allows you to have an exploration permit so nobody else can claim-jump while we've got the permit, thankfully. That was pretty common in the old days.

Xavier said: How long do you work for?

Bernie said: That's a good question. You'd have to ask the workers that. I know what they get paid for, how long they work for is a different question. Some of the workers work for nine hours a day, some for 12 hours a day, but no longer than 12 hours per day.

Tim said: Do they live up there Bernie while they're doing that?

Bernie said: Yes they do. There's a camp up there. They work two shifts, days and nights, they cook their own meals. All the food supplies and the people themselves are flown in and out by chopper. Sounds like a good job doesn't it Xavier? We create a wooden platform above the floor and we put all the equipment on it and the helicopter comes and drops it all in.

Brian Powell said: And all the waste is flown out at some stage?

Bernie said: Yes it's all taken out and all the fuel is taken in.

Tim said: Kit has talked about the care you have to take around the Archie's Frog in particular.

Bernie said: Yes, the Archie's Frogs are an endangered species and we have to put ecologists into where we want to drill. So, if we pick out a particular drill site we have to have ecologists do surveys to make sure that it's not over-ridden with all these frogs.

Glenis said: How's the population looking?

Bernie said: Pretty healthy actually. We struggle to find drill sites, we really do, there's lots of them up there.

Glenis said: Do they find other native species?

Bernie said: Yes that's incidental but the main focus is the Archie's Frogs for the ecologists. There's only a certain time of the year that is suitable for those ecology surveys. Russell, is it before and after winter?

Russell said: Yes, starting now and going through to February or March.

Bernie said: And then before winter as well isn't it, sort of autumn and spring?

Russell said: Yes.

Glenis said: Is that because that's when the frogs are most active?

Bernie said: Yes, they hibernate.

Russell said: Temperature and humidity are probably the two main drivers for them to be out and active.

Tim said: I'm wondering if now is a good time to ask those questions that Ruth has emailed because they relate a lot to what you have said Bernie. Can we do that?

Bernie said: We can do those now if you like, we have prepared some answers.



Tim said: Ruth Ordish puts in her apology for the meeting and said that she had some questions that she would like to get answered in the meeting and recorded in the minutes of the meeting. This might engender some discussion from you guys too.

Tim said: Question 1 from Ruth is, *"When is Correnso to finish?"*

Bernie said: I gave that answer earlier, it's about the middle of next year, mid-2020.

Paul said: Just going on from that Bernie, at any stage could you go back into Correnso?

Bernie said: Yes we could do.

Paul said: If you can go deeper or whatever?

Bernie said: We haven't really got any plans for that.

Paul said: How does that work with buy-out options and things like that? If you've finished then obviously you can't sell your house to the mining company. If you've finished Correnso and then you go back in there does that re-start?

Anne Marie said: The consent has a time period. So whether you stop (mining) or not the consent is still valid up to a certain point. So if you go back in the conditions would still apply. If you go in again outside of the timeframe then you would have to re-apply (for a new consent).

Paul said: Whether they're actually mining or not is irrelevant, it's the licence.

Bernie said: That is right, the consents have an expiry date and as Anne Marie points out if you go beyond that then you're not allowed to mine, you have to reapply. But if you stop mining before the end of that time period the conditions still apply to that time period.

Tim said: Question 2 from Ruth was, *"Are there any plans, speculation, or likelihood that the area in the East End of town, outside the Correnso area, may be subjected to an application to mine?"*

Bernie said: The Waihi area is highly prospective. There is always the possibility for exploration or mining applications to be made in the future and that could be by us or it could be by another company. We don't have all of that ground, so it could be another company as well.

Tim said: So the question was, "... plans, speculation, or likelihood" and what you're saying Bernie is that ...

Bernie said: It's a possibility.

Tim said: Question 3 is *"Please list the initiatives and intentions of the company with regard to the declined purchase of land with a view to a third tailings impoundment?"*

Bernie said: It's the Overseas Investment Act that governs that process. We are a foreign company and we have to apply for Overseas Investment Office approval to purchase property. We made the application, the decision was made by two ministers – one was David Clarke who said "yes" and we had Minister Sage say "no". In that event, because it was one-all, the application was declined even though in the opinion of the officials who reviewed our application we had easily satisfied all the tests. The main test to allow a foreign company to purchase land is the economic benefits test. They compare your investment proposal to the existing land use, what your plan is for that land use compared to the existing land use and if there is an economic benefit. With gold mining it far outstrips the benefits economically of a dairy farm. Nonetheless we had our application declined and so we have lodged an application with the High Court for a judicial review of that decision and we're in court next month with that to ask the court to review the process by which that decision was made and hopefully direct that the decision gets looked at again. We don't think the process was followed legally and appropriately. So, with all that in mind we're still continuing to look at our options for storage of the tailings and that involves a range of studies. We're not ready to share any of that yet as we're still looking at what we might want to do there.

Erich Schmidt said: You can store your tailings underground?

Bernie said: We can, that's one of the options we're looking at.

Erich Schmidt said: It's more expensive.

Bernie said: Yes it is, it is one of the options we are looking at.

Glenis said: When you create the tailings storage can it be used for any other purpose apart from tailings? Could you be using that for something else at the same time?

Bernie said: Well, we do that now with grazing. Russell you could talk about the stock and the way we work the land there on the slopes.

Russell said: If you look from the air the rehabilitative batters are probably over half the area of the tailings facilities themselves and they are run as a dairy farm run-off at the moment for fattening the young stock. I guess that any other storage facility would be used in the same way. The pond on the surface is a significant wildlife habitat at the moment, through no real attention of our own, it's just established in its own right. What is the desirable outcome productive-wise of an area of land? Do you want a wildlife habitat which some people would love? Do you want productive dairy farms which other people would see as the ideal outcome? I guess we've got to find that balance.

Tim said: Russell, where's the dotterel programme based? Is that on the tailings storage facility?

Russell said: The dotterels nest wherever they like, and they tend to like people for some unknown reason. So, while there was activity on the tailings facility the birds were nesting up there, but in recent times they have nested down near our water treatment plant.

Tim said: Question 4 is, *"Does Oceana acknowledge that the community was given a promise that no third such impoundment would ever be applied for, or permitted?"*

Bernie said: Well we don't have any knowledge of that and so can't really comment. It may have been something that Newmont might have said, we don't know.

Tim said: Question 5 is, *"Does the council and the company acknowledge that in the early 2000's considerable resources, and many hundreds of volunteered community hours were given to create upward of 40 projects, "for Waihi Beyond Mining"? Mayor Tregidga and yourself Kit were part of that process. Why would the company and Hauraki District Council not re-boot this project? Please explain."*

Tim said: So, that's the Life After Mining Project.

Bernie said: So, I've got Kit's take on this. The 20/20 Vision project was designed to ensure that Waihi was socially resilient and economically robust after mining ended. Mining has not ended. The Waihi Community Vision group disbanded because mining was continuing. It returned its funds to the company, for use when mining finally does end. When this time comes, it would certainly make sense for the group to be reconvened and for the many projects to be revisited and reappraised. I guess in short Ruth asks if it makes sense to reboot this project. Well probably it does but not currently because it's the project that you need to look at sustaining projects beyond mining and we've still got a life ahead of us with the mine.

Leigh said: That all pre-dates my time at council but I am aware that the council is looking ahead as well with different strategies like tourism and recreation, social and economic things and also looking at land use around town, whether there is a need for further industrial, commercial or residential land. So, it's not all about mining there is some other stuff happening as well.

Tim said: And you might be able to answer this Leigh, is the Sport 'n' Action project still going?

Anne Marie said: Yes, it is.

Tim said: And other things?

Anne Marie said: The Rail Trail.

Tim said: So, some of those projects that were kicked off in 2000 through to 2008 and 2009 are still going?

Anne Marie said: I don't know if the Rail Trail was part of it, I wasn't part of that 20/20 Vision, but I'd like to think that if we look at this again we do it a little bit closer than before the end of mining.

Bernie said: Absolutely.

Tim said: So we'll record the answers to the questions Ruth has raised in the minutes and they will be available for those who attend the meeting and beyond (ie those who get the minutes).

Bev said: When Correnso shuts down, you're still going to be mining over Daybreak towards the open pit aren't you?

Bernie said: Daybreak is considered as being part of Correnso. So, when I say that Correnso is due to finish about the middle of next year that would include Daybreak. But what we're doing at the moment is developing the new Martha underground mine. So, we want that to take over once Correnso is finished.

Bev said: At the moment the drive under Gladstone Road towards the open pit goes the whole length of my section. I thought once Correnso shut down that I wouldn't be affected. When you re-applied for the new part I got a thing in the mail to say that as my house is part of the new consent that I would still be affected because you're going to use the main underground road to take ore out from the other side. Is that correct?

Bernie said: I'm not sure, I'll have to have a look. I'm not exactly sure where you are.

Bev said: 17 Gladstone Road. I went underground on the tour and I asked them before I went down there, "Can you tell me when we're right under my house?" and they said that was where the new roadway out to the main pit is, the whole length of my section.

Bernie said: How about we do some homework on that and I'll get Donna to come and talk to you about it, because I'm not familiar enough to be able to say yes or no at the moment.

Donna said: When we took you underground the new road out to the pit wasn't there. We went straight ahead.

Bev said: I realise that but I did ask at the time and when they applied for that new consent I got a whole lot of paperwork to say that's where the roadway is, it goes the whole length of my section. And the other question I have is, how long is that new consent going to go for?

Tim said: So Bernie, Donna and Jeannine, you are going to have a look at how long the consent lasts for and where exactly it applies to in relation to Bev's property and get back to Bev?

Bernie said: Yes.

*Post-meeting update: Donna has spoken with the underground engineer and has advised Bev that the only thing that will be happening for the Martha Project under her property is that the drive that already exists which is at 170m below the surface, will be used as an access tunnel for vehicles. There will be no blasting or mining, it will just be used to gain access to the Martha Project area. Donna explained to Bev that she will still feel blasting from time to time from Correnso mining and this will continue as Bernie indicated to about August next year.*

*Post-meeting update: Donna has explained to Bev that the land use consent issued by Hauraki District Council states in General Conditions 1A4: "Pursuant to Section 123 (b) of the Act, this consent is for an unlimited period". Project Martha will extend mining for a further 12 years from 2019. The duration being unlimited is on the basis that time has to be given for rehabilitation.*

Glenis said: We hear about ore bodies like the Rex ore body. Are those ore bodies included in the new mine? Is that part of that mine? I'm just a little bit unsure of which ore bodies are where and what mine they're included in.

Bernie said: Yes, Rex is. We have a boundary that covers the Martha underground area and it does include Rex and there are four or five main veins that the old-timers mined out. In total I think there are close to 100 as there are lots of little ones as well and they've all got names but I can't remember them all.

Glenis said: Were those names given previously in the historic mining?

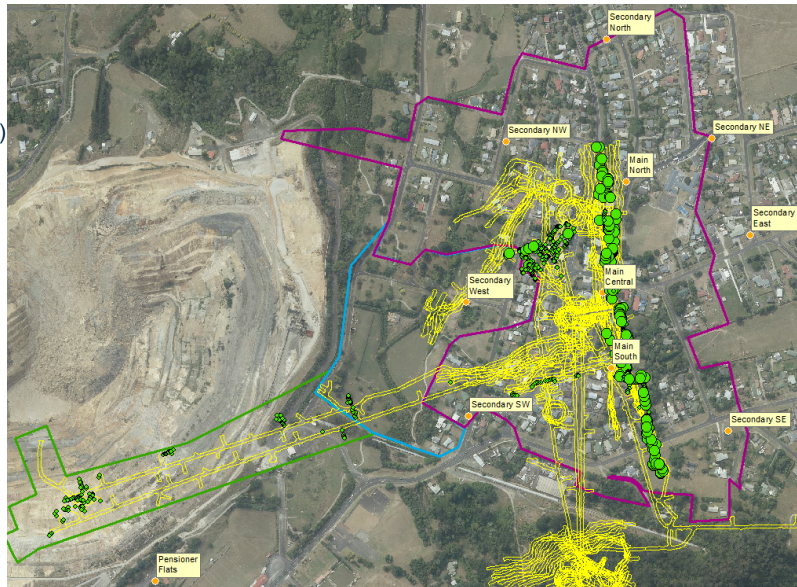
Bernie said: Yes.

## Item Two: Environmental Overview

### Correnso/SUPA

#### Vibration

- Six-months to date performance
- Development blasting (243 events)
    - Highest average 0.63 mm/s (consent limit 2 mm/s)
    - 95 percentile 0.85 mm/s (consent 5 mm/s)
  - Production blasting (121 events)
    - Highest average 1.67 mm/s (consent limit 3 mm/s)
    - 95 percentile 4.08 mm/s (consent 5 mm/s)



INNOVATION PERFORMANCE GROWTH

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#### Vibration

Russell said: This is a continuation for those of you who have been to these meetings before, it's just a routine update of where the activity is. Not a lot has changed but you will see there's been no production blasting in the Daybreak zone or SUPA so that has largely been mostly completed. But, there's still always opportunities of working through those areas because remember the access drives go through them, so there may even have to be little tidy-up blasts now and then. The main activity is along the main Correnso veins. As Bernie says there is some deep blasting. This is the "Correnso deeps" and there is also some smaller upper level mining as well, very narrow vein mining. We're so tight in those areas up top, close to the surface, we're actually going into hand-held drilling techniques so it's quite technical. The larger dots on the map (see slide above) are where the production blasts are. The smaller ones are where the development drives and workings are. There's a little piece in the middle here, when you talk about names, that's the Louis vein that's being explored and developed. Since we've had our main intentions we've found this ore body in the middle of Correnso and it's going to hold us for a little while.

Paul said: Is it under Boundary Road?

Russell said: Let me get my bearings. There's Secondary West so that's Slevin Street, so the upper level of Roycroft Street.

Trevor said: Has there been much work out under Mataura Road? Just recently we've had a couple of good shakes, this side of Mataura Road. I'm on 203 Kenny Street and I didn't think there was any work there but we've had a couple of pretty good shakes.

Russell said: We've discussed in the past about how the crew manage their blasting with reference to the vibration levels at the surface. When they are blasting in the main central part of the ore body they often put delays in the middle of the charge. So, they break the blasting column into two, three or even four levels and that's designed to reduce the size of each individual explosion and manage the vibration that is felt on the surface. Effectively we're not blasting as much as a full column of explosives because we're splitting it into several units. As we get deeper we are further away from the monitors so we reduce the number of delays and right down the bottom we have no delays at all, we actually blast the entire column in one because it's all governed by what the vibration is felt at the surface. The consequence of that is when you get lower down, comparatively you are a relatively similar distance away from every monitor on the surface, if you think about getting further away from something on the upper level. So what happens is the blast that is felt by people on the surface is felt over a larger area. It's not necessarily larger but it's felt over a larger area. And we noticed that last week when one blast went off, I think it was Friday, we had 17 monitors triggered.

Tim said: Because of the depth it means more spread?



Russell said: Yes.

Tim said: Is that the one you felt Trevor, the Friday one?

Trevor said: I think it could have been, yes.

Russell said: It didn't register very high on any of the monitors, but it went over a large area. It's just a phenomenon of blasting deep and with reference to what the vibration levels are on the surface.

Tim said: So is the answer to Trevor's question about whether you are back over in his area, that it might be the fact that you are just deeper and the vibration is spreading?

Russell said: Yes.

Bev said: I have my own monitor in my house at the moment. I bought one of those canvas painting touch-lamps and when I get home from school my touch-lamp is going. That doesn't always happen, it didn't happen yesterday. I don't know what the blast was like today because quite often I'll go home from school and my touch-lamp in the bedroom is going, my house must vibrate a reasonable amount for that to set it off.

Russell said: Everybody's houses will vibrate from blasting, even mine in Katikati will. It's just a matter of magnitude and closeness to you.

Bev said: Since I've had the lamp it's been 10-15 times that the lamp has come on when you've had blasts.

Russell said: The other thing we noted from the blast the other week was it was a slightly lower frequency than normal and we can't explain why that happened. For those of you who know about noise, low frequency noises carry a lot further than high frequency noises and it's the same with blasting. Some of it had a frequency of 10hz, you can almost see it.

Trevor said: The vibration from this mine is nothing compared with prior to 1950. They'd shake 1km away no trouble and I think people have got a mind-set that the mining you're doing now is the same as the old mine and is going to create the same problems. But it's chalk and cheese.

Russell said: I think we have the environmentalists and the protests to thank for that. If it wasn't for them we would probably still be mining the same old techniques. So, I'm thankful that there's a balance in the community that says we shouldn't be mining the way we used to, that's not acceptable any more.

Trevor said: Yes, exactly.

Russell said: The (consent vibration) data on the side may not mean much to you, it's probably more relevant to Leigh (HDC). We have a limit of 2 for the average of the development blasting whereas the highest monitor I believe is Main Central and was 0.63. The 95% was 0.85 and that's because most of our development blasts aren't even triggering monitors. You will probably hear them more than feel them I'm guessing, the morning and evening blasts, and that's because they have that little beep to them that you can tell. For the production blasting, the highest average was 1.67. That was Main North this time because we've had a bit more of that narrow vein mining closer to the surface as well as the deep mining underneath, a bit more up there and the 95% is 4.08. That looks close to 5 but you have to remember that it's 95% and in layman's terms that's like 1 in 20 blasts over 5mm per second. We have had two or three this year Leigh?

Leigh said: Maybe three.

Russell said: Out of 200-odd blasts, so we're rolling pretty well.

Trevor said: Do you think people are looking at the blasts in the dollar sense not the vibration?

Russell said: I don't want to guess.

Tim said: Now that the pattern of mining is changing, what are you noticing? Is it the same, worse, better, variable? What do you think in terms of the vibration? Is it still affecting you?

Trevor said: No, it's a lot better.

Sandra said: A lot better.

Paul said: Less.

Trevor said: I miss it actually.

Tim said: That's good to hear.

Anne Marie said: That Friday one was a doozy.

Russell said: That was a weird one. When I saw the results come in and my emails started streaming, I thought, "That's weird".

Eric Rhodes said: We live in the East End not far from the Martha mine. We've got a brick house and we have no problem, no cracks in the mortar or anything.

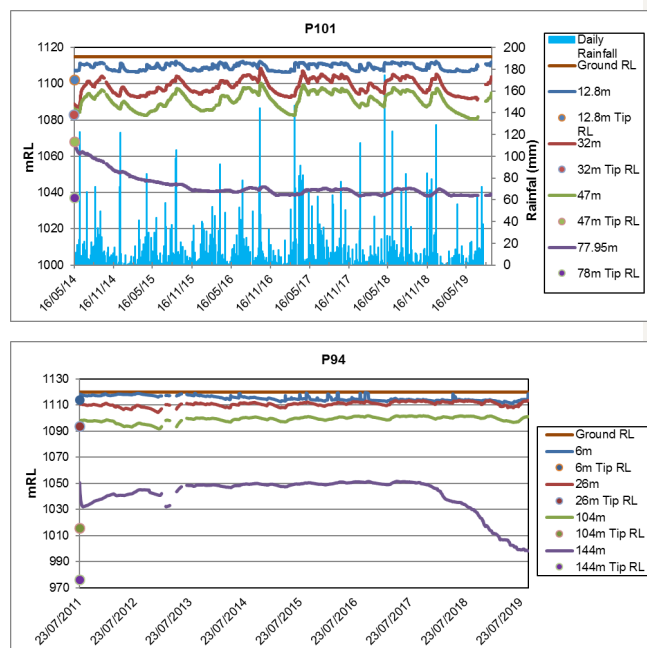
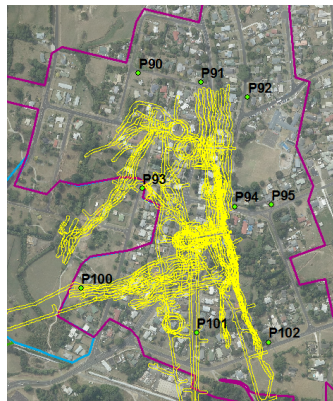
## Correnso/SUPA

### Dewatering

Established piezometers (e.g. P101)

- Shallow monitors respond to rain
- Deep monitors slow response

Piezometer P94 (est. 2011) deeper Andesite piezometer in touch with upper mining levels (shallower levels unaffected)



INNOVATION PERFORMANCE GROWTH

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### Dewatering

Russell said: Bernie mentioned before about dewatering providing the access to go back into Trio again. The main things to notice here (on the slide) are the water levels and I've added the workings this time for the map. You can see P101 lower down here, that's probably the one that's showing the most unique signature. You can see the shallow sensors on the piezometers which reflect the rainfall events. You can see how they drop off. This is the rainfall peaks coming through from the last five years. These big blue lines are rain and as it rains heavily the water levels will go up in the groundwater. It's pretty obvious if you think about it. We are down in the lower ore bodies, the andesite underneath everything. There's several clay layers between the mine and the upper levels and that seals our workings off from you above. We are not seeing any change in the water table, the characteristics above and what is happening down here we are stabilising at various levels. The one that is unique is P94 which is very close to the middle of the mine and also very close to the narrow vein mining that we're talking about. So the narrow vein mining is getting up to 60m below sea level, so that's about 180m below you. We call that the 940m level. We add 1000m to our levels to make it easier to compute. You can see here, that's where my sensor is in that monitor and the water level is dropping down. The reason for that is our workings are getting quite close to that sensor and it's dewatering the lower ore body around it. The positives are it's not having any effect on the shallow levels around it. That's the critical component. If we really started to dry up those upper levels then you would have the risk of some differential settlement, you could get cracking in concrete and things like that. These piezometer measurements are our reassurance that it is not happening.

Tim said: Excellent. So the rainfall levels on that top graph are just a comparison between how much rain there is and what's happening to those top lines there?

Russell said: Correct.

Trevor said: Wouldn't you have thought in the early days of dewatering there would have been the slumping, there shouldn't be much now should there?

Russell said: Strangely enough the land goes up and down. The water comes out of the pore spaces in the ground, even in solid rock there's pores. So, the water comes out when they dewater and the ground compresses. Strangely enough, when you let the water back in again it goes back up again. But it doesn't go the whole way up. So, if you've dewatered like the old-time miners did, the area of Waihi east probably dropped 10cm to 20cm. When you remove the mine it goes back up again but probably only half as much. When we go in and dewater we could potentially bring it back down that little bit. That's called secondary dewatering. Primary dewatering is much more severe than the secondary. We noticed this a lot with the earlier Favona mine near the middle that hadn't been dewatered before and it compressed more than was originally anticipated using the Martha data.

## Correnso/SUPA

### Settlement

- Eleventh survey of markers in May 2019. No settlement issues for Correnso.
- No significant change to minor reportable tilt, 1:878 (cf. 1:851 May2018 & 1:969 Nov2019), detected around settled area in Slevin Park (see arrow).



### Settlement

Russell said: This is a really straightforward one, there are no settlement issues for Correnso. We're continuing to do our six-monthly surveys. The only glitch in the system is Slevin Park. For those of you who have been through the park, there is a fenced-off area in the middle that is growing grass quite well because we try and avoid it, we're not too sure what's going on with it. Our workings aren't anywhere near it and the old workings are out to one side. It might be that the (small amount of movement is caused by) other activities, there's several council pieces of infrastructure with sewers, stormwater and water supply going through there. Whether there's some interaction there I don't know. The fortunate thing is it's in Slevin Park, it's fenced off, it's shallow and it's only just triggering the settlement criteria. So, we're sitting back watching it and seeing what's happening.

Trevor said: Could that be a bit like the old netball courts? It's the same thing there isn't it?

Russell said: I don't know, it's a matter of trying to figure out. You might put a drill rig through it to see what the structure's like, whether there's been any infilling when it was being developed. You don't know how the land has been treated at times. It doesn't seem to be widespread or changing significantly.

Tim said: How much are you noticing?

Russell said: To cause these sorts of changes that we're talking about, 1 in almost 1000, to go from 878 to 851 is in the order of 2mm or 3mm difference in survey. So, you're getting very close to survey error to try and determine these changes.

Peter said: How did you originally notice it?

Russell said: That was my fault. I happened to be wandering around. There's actually a grate in the corner of the intersection of the old streets here which is the obvious place where stormwater should run. The water was ponding about 10m or 20m further up the street and I thought, "That's not natural". So, I came back and reported it and then we started looking at the maps to see where it was. There are old workings closer to the pit from that, and we thought initially that they could be an influence. But they seem a little bit too far away, you would normally expect it more directly above them.

Trevor said: Nothing to do with the old junction?

Russell said: You mean the underground workings? No, we've got them on map as well and there's nothing significant there either. We keep on coming back to the possibility that there is some break in a service line but without going in there and ripping everything up it would be very hard to tell. My instinct is that there may be a stormwater line that's inter-connected to the sewer line or something like that and it's causing a little bit of a tomo underneath.

Trevor said: There wasn't sewerage there in those days.

Russell said: No, but there is now. As you said before it could be part of some sort of development. We would say it's really the council's problem but at the same time we're all one community.

David said: It's not that far off the natural water course.

Russell said: The Eastern Stream is probably a good 50m or 60m away. And you're right there has been some tomos open up further up Newman Street.

Paul said: So, that's not by those ones that were on Newman Street?

Russell said: No, the ones in Newman Street were if you go down Newman Street to the gate, immediately to the left of the gate.

Paul said: That's where they put that pile of dirt on top of it, on top of the original slump.

Russell said: Yes.

## Item Three: Social Overview

### Waihi Community Forum

Through roles given to the Forum in the Correnso resource consent, and goodwill programmes initiated by OceanaGold Waihi, the forum's purpose is to contribute towards a thriving and sustainable community for those residents and ratepayers living close to mining operations.

#### Recent Projects Include:

- **Community Basketball Courts:** Turning the old and disused netball courts into basketball courts for people to use at any time. These have been used constantly - by young kids, youths and families. Shelters have recently gone up and the Forum is now looking into lights, drinking fountains and artwork at the court area.
- **Automatic External Defibrillator Installed (AED):** The Forum learned that there was no public AED in Waihi East so had one installed, for community use, at Waihi East School.
- **Cherry Blossom Society Funding:** The Cherry Blossom Society led Awanui Cherry Tree planting projects on Barry Rd and Maitara Rd in July last year and in parts of SH25 heading into town earlier this year.
- **Merry-Go-Round Update and Repair:** The Waihi Community Forum was happy to fund the repair of the much-loved merry-go-round at the Waihi East School Community Playground, which was out of use for health and safety reasons.
- **Home Improvement Grants:** As part of the Streets Ahead project Waihi East home owners were given a Street Front Home Improvement grant of \$300.
- **Independent Review Panel:** The Property Purchase Guidelines were recently reviewed and updated

Waihi Community  
FORUM



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INNOVATION PERFORMANCE GROWTH

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Tim said: Anne Marie, Donna suggested you would be a good person to talk about the forum?



Anne Marie said: I didn't think I was going to be speaking, but sure I can talk about the forum. Do you all know what the Waihi Community Forum is and how it came about? It was set up after Correnso was announced and before consent was granted and it's a group of up to five residents, two from council and two from the gold mining company. It really came about because residents in the Waihi east area who weren't over stopes wanted some sort of better deal than what Newmont was putting on the table at that time and Newmont worked with that, made it better, we got the forum and we got a few projects.

There are three things that the forum is responsible for. The first is appointing the Independent Review Panel (IRP) and that's used for a binding arbitration process if there is dispute over house damage and the IRP is also used for property purchases. So, that's the other thing the forum does, it sets the property purchase criteria for those houses not over the stopes and it also appoints the panel for that process. The third thing that the forum does is the Streets Ahead scheme which was set up to enhance the area where Correnso is taking place. Recent projects as you can see are the basketball courts. We decided to update Morgan Park where the old netball courts were by putting some basketball hoops up there. That's become really successful so we're going to put some lighting in there and some water fountains hopefully. Max has put some shelters up and we're going to apply for external funding for some artwork along that really ugly green wall along Kenny Street, it really needs a good tidy-up. We have also just installed a defibrillator at the Waihi East School which is really cool and that is available for anybody in the community 24/7. It's going to have an engraved plaque on it which tells me exactly where you are located when you call up 111 and you only need to call 111 if you don't know what to do and they'll help guide you. We've done some more cherry blossom planting, we funded that through the Cherry Blossom Society and that's along State Highway 25, you'll see some trees along there on your way out towards Whangamata. Other things that we've done is we did the big community playground at Waihi East School which is also open to the community at any time and there's a free BBQ there as well, so that's available for you, for your grandchildren at any time of day. We updated the merry-go-round there which desperately needed repair. We've done two lots of home improvement grants as well which was very successful. We've just reviewed the property purchase guidelines recently so we're ready to go if we have another property purchase round. We probably won't do a big purchase round, if we do have another one it will be if anybody wants a purchase they come and see us. That's pretty much it.

We've got four community members at the moment, we're looking for another member from the community and preferably who lives in the Rex and Martha areas, so if anybody's interested come and see me, that would be great. We are a really organised forum that's been set up very well. We're quite excited about looking into external funding for the artwork. Perhaps there are other things that we can also do, once Correnso finishes we could just keep going. The Streets Ahead fund is limited but we could apply for external funding through our organisation for other things elsewhere in Waihi east or the Rex/Martha area. I think that's pretty much it Donna wouldn't you say?

Donna said: Yes.

Anne Marie said: Donna's also on the forum and Max who was here earlier is on the forum. Any questions?

Helga said: You say you are putting drinking fountains by the basketball hoops, but what about toilets?

Anne Marie said: There are some public toilets by the skate bowl, they're not open the whole time though. We wouldn't have the funding for that, it would cost tens of thousands of dollars and would be a council thing.

Helga said: They are never open. I was going through there and I found out that they are locked up.

Anne Marie said: No, they're not, so that's something I think Sport 'n' Action needs to look into because once that park is developed, you're right, people are going to have to use those toilets more often. I could look into that.

Donna said: They used to be open more but they got vandalised and smashed.

Anne Marie said: They do and there's loads of broken glass around there so it's a bit of a hangout, but that doesn't mean to say that they can't be open during the day. I'd need to look into that, that's a council thing.

Helga said: They don't need to be open at night, but during the day when people are playing there.

Anne Marie said: Yes that's right because you've got the Sunday soccer going on there with the younger kids, you've got the Saturday afternoon soccer, you've got all sorts of things going on there. I agree, I can look into that.

*Post meeting update: Anne Marie advised that council are going to build new and better toilets at the park.*

Glenis said: Initially with the forum for Waihi east there was more of a public process on who was on it. Is it more of a shoulder-tapping type thing now?

Anne Marie said: No, not at all. We advertised in the Leader, on Facebook and on the website, and I think we've still got an advert on the website, but nobody has come forward. We can still function as a forum. I'd like to have a majority of community members on that forum. We currently have four members from the community, two from council and two from the mine. It would be great to have that fifth person.

Paul said: One thing that bugs me, the basketball courts are really cool and Max has done a great job of those shelters, but when you drive past there is a pile of rubbish and plastic. When will they move that stuff?

Anne Marie said: I know, that's a Sport 'n' Action thing. I know that they had the netball A team recently pick up all the sharp objects from that grass part in the front, and then I think they are going to be doing something there. There's that stump as well, I don't know why that was left there, it's really messy.

Paul said: That was when Carters did their bit.

Anne Marie said: I quite agree, it's really messy. Again I can ask, I'm sure it is going to go. I keep wanting to go there and clean it up myself.

*Post meeting update: Anne Marie advised Paul that the white plastic at the old netball courts was covering some exposed wiring that was not live. Council will be placing boxes over this shortly.*

Tim said: Fantastic, Anne Marie thank you very much.

## Community

### Amenity Effect Programme (AEP)

- Jan-June 2019 Payments to qualifying residents delivered last month
- 403 payments totalling \$237,916
- \$3.75 million paid to residents since 2007

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OCEANA GOLD

## Community

Donna said: In the January to June 2019 round of AEP there were 403 residents that received an AEP payment. That's actually slightly more residents than last time and that's because people have moved in and moved out and there's actually quite a few new people arriving in town. The number is actually lower at \$237,916, so it has come down a lot. It will keep changing as we keep mining and moving away from different areas.

Tim said: So from the last meeting minutes it says that from the end of 2018 (the previous six months) to this AEP period there were 272 payments totalling \$257,252. Less people were paid out to and about \$20,000 more was paid?

Donna said: Yes.

There were no further questions. Tim closed the meeting and reminded attendees that the next meeting will be in March 2020.

The meeting concluded at 5.40pm.

Attendance register	
Leigh Robcke	Brian Powell (until approx. 5pm)
Paul Boggiss	Anna Powell & Xavier (until approx. 5pm)
John Sheppard	Sel Baker
Eric Rhodes	Sue Moore
Trevor & Jeanette Skinner	Helga and Erich Schmidt
Lillian Lee	Bev Ireland
David Carrington	Anne Marie Spicer
Vivienne Pickford	Sandra & Ferg Cumming
Peter Sherman	Mike Matutinovich
Max McLean (until approx. 5.15pm)	Bernie O'Leary
Russell Squire	Donna Fisher
Jeannine Wiki	Kyle Welton
Phil Salmon	Brian Habberfield (until approx. 5.15pm)
Brian & Glenis Gentil	
Tim Clarke	Louise Fielden