

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

Thursday 15 March 2018

The following is a record of the CEPA/SUPA community meeting held at 4pm on 15 March 2018. Where possible, we have tried to capture individual contributions at the meeting but these do not purport to be verbatim notes.

## Welcome

Tim Clarke welcomed everyone to the 3<sup>rd</sup> combined CEPA and SUPA community engagement meetings and introduced himself as the independent facilitator. Tim explained for those that have not attended before that the meeting is being digitally recorded so that he and Louise (independent secretary) can prepare accurate minutes of the meeting. Copies of the minutes will be emailed to attendees and are also available from the i-Site, the Gold Discovery Centre, HDC Service Centre at the Library, and Oceana Gold office. For those that want to listen to the meeting, Oceana Gold will email people a link to a drop box (that will remain connected for a week) so they can download the recording and listen to it themselves (if people would prefer then they can request the recording on a memory stick from the Oceana Gold External Affairs team – phone the 0800 92 44 44. Tim reminded those present that the purpose of the meetings is to hear Oceana's updates on progress, to ask questions and raise any issues that you have. He said questions that can be answered today will be, and any questions that require research or checking will be answered by Oceana Gold as an addendum to the minutes or at the next meeting.

Those present were asked to introduce themselves – see attendance list at the end of these minutes.

## Matters raised at the last meeting

Kit Wilson said: This is the biggest attendance at a meeting we've had for a while. I'm not sure whether that is because we have settled on one meeting (rather than two on the same day) and holding it at 4 o'clock or Jeanine's scones, but thank you very much for being here, we really appreciate that.

## Item one: Project overview

# Correnso/SUPA



## Outline

### ▶ PROJECT

Martha | North Wall | Correnso | SUPA | Near mine exploration

### ▶ SOCIAL/COMMUNITY

Communication | AEP | SIMP

### ▶ ENVIRONMENT

Dewatering & Settlement management | Vibration management

## **Martha open pit, North Wall**

- Nothing to report since last meeting
- North Wall is stable, but will need further remedial work for long term stability
- We aim to have more information available on how we can do this in a few weeks.



Kit said: These are both old photos. This one here (first photo) is how the North Wall used to be before the slip, so that's about 4 years old, in fact it might even be 5 years old, the trucks used to go up and down the haul road. This one (second photo) is about 2 years old and that's how the slip looked before any work was done. We've finished there in terms of the slip not moving backwards towards the perimeter of the pit, but there are still rocks falling off there. We need to find a way of doing something with that, and we think we've found a way but we can't talk about that for a couple of weeks. The reason we can't talk about that for a couple of weeks is we have a project that we need to share with you in a couple of weeks and that forms part of it. So, about 2 weeks from now we'll be talking to folks about the plan. Real estate agents, I'd like to have a talk to you some time about having a meeting together, once we are ready to make an announcement.

Tim Clarke said: So Kit, that's just to organise a time to catch up with them in 2 weeks?

Kit said: Yes, sorry because I know they'll be interested in what we're doing, as will everybody but there'll be questions that real estate agents have that other people don't have.

Tim said: Kit, how does Oceana know that it's stable now?

Kit said: We used to have a prism system, now we've got a radar system, the same radar system which allowed us to predict when the slip was happening in 2015 or 2016. We said that it would happen on Anzac Day 25th April and it happened at 4.50 on the 26<sup>th</sup>. We were close and we knew what was going to happen.

Tim said: Murray's comment just now that he saw two rocks fall isn't indicating that it's on the move again?


Kit said: No, it's not. At the last meeting I talked about a mining term "frittering", where rocks fall off the side of walls. The slip originally happened because there was a volcanic mass of rock which, over hundreds of thousands of years, had trees growing on it, and then another very large volcanic eruption happened and the second large pile of rock landed on top of those trees. So there was volcanic mass, squashed forest (that the miners call a carbonaceous sheer) then volcanic mass. So that forest has been squashed down to about 1mm thick by the rock. Then because of faulting and folding, that whole terrain has moved and tilted

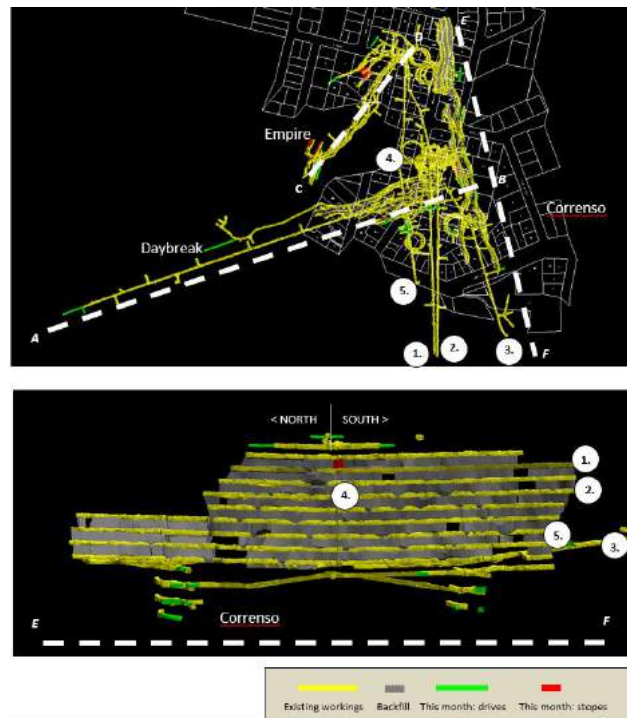
sideways and what happened with the slip was the big mass of rock slipped off because the carbonaceous sheer provided a slip zone.

To stabilise it we need to go back behind that a little bit and then take the top off to make sure that it's okay (we have done that). The other reason we know it is stable is the angle of repose of the pit wall (like Ngauruhoe, Tongariro, Egmont). Many of them are sitting on that 45-degree angle. That's the ideal for us. I don't know if we'll get there but we need to take a bit more off the top and that will form part of the project that we'll be announcing in a few weeks.

### Correnso/SUPA

# Correnso/SUPA

  
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Kit said: First of all an apology. In the maps that we gave you (in the East Ender) for February, the property boundaries were drawn in green and they printed out on top of everything else which meant it was impossible to tell which they were, and which ones were workings. A couple of people rang me and I thank them for that otherwise we wouldn't have picked that up.

This (slide above) shows you how close we are to finishing in Correnso. So there's the cross section in Correnso, given that the red is this month's stoping and the green there is this month's drives and the grey is all the backfill, that's Correnso. We are right at the bottom with a couple of little drives, we've got one area there where we're stoping, the rest is all backfill. We are very close to done on Correnso, pretty darn close. If there's something with the East Ender that doesn't make sense to you, let me know. The last time we had a conversation about the diagram out towards that bit and you asked me to keep the scale of this diagram the same.

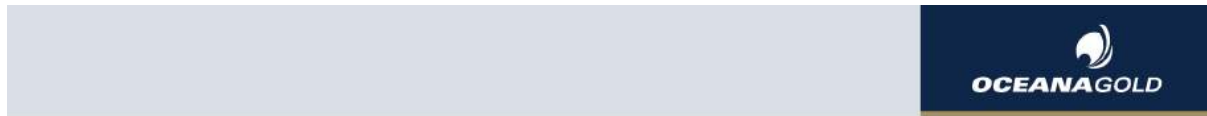
Erich Schmidt said: In the last East Ender there was red between 4 and 5 [in the bottom picture on the slide] and that was huge. I couldn't understand why. It was a huge area.

Kit said: I have to say that two-dimensional plans like this, plan view and cross section, don't give you the best view. In an ideal world we would bring along a big computer screen and show you a wire framed model that we could rotate. What you're getting here is a cross section through one part, which is why (remember when we started doing this) there's the cross section there. So I can see why that would look to be the case but we have been backfilling a lot. Remember that we don't backfill the drives, the drives that are 5m high

and 5m wide, but we do backfill the stopes and that's what we've been doing. Because we mine bottom up, if we don't backfill the stopes we can't get to the next level. Does that answer your question?

Erich said: Yes.

### **Near mine exploration**



Kit said: This is actually not the helicopter we were flying in today. We took some people up to Wharekirauponga, which is the area that we are exploring (just the other side of the hill here, towards Whangamata, and going up the Parakiwai Valley). There's an awful lot of misinformation about what we're doing up there so although it's not Correnso just bear with me for a second. We are actively looking for a deposit that we can mine by underground methods. We are not looking to open pit on the Coromandel. If someone knocks on your door and says, "the Oceana Gold people are going to open pit the Coromandel", we aren't. Two reasons – (1) we don't and (2) you'd never get it permitted, you just wouldn't. We think we are getting close to finding something there, it'll take a lot more drilling. If we find something there it would be underground, if it was underground we would have to find a way of getting access to it that didn't involve going through the bush and it's as simple as that. If it's big (worth it) we'll sort it out. If it's not big and we can't do it, we won't. In the meantime the blue and yellow helicopters continue to fly, we've got two rigs up there, there's a story in today's Leader about what we're doing. We've got drill rigs on wooden platforms. The platforms are off the ground so that we don't damage the shrubbery and the bits and pieces that are there. We have to check all the frogs – if there's more than five frogs in an area 10m by 15m we don't go there, if there's less than five we're allowed to. We douse our feet in Trigen to make sure that we don't carry Kauri die back spores anywhere, and I've doused mine four times today. So if you hear stories, we are actively looking and we'll see how we go. So that's by the by.

Tim said: Kit is Parakiwai the exploration area you talked about at this meeting 6 months ago?

Kit said: Yes, it is the same activity I talked about last time and when I said we're still drilling. It could be that although there's something there it's too deep, or it's not high enough grade, or we can't get to it because it's not practical to get there because we have to do it by underground methods and we have try and figure out a way of getting there.

Tim said: When will you know Kit?

Kit said: Not for a long time. I have a sneaky feeling I might be retired before we do anything with it but I think it's important people understand that we are doing that.

## Item two: Social overview

### AEP

## Correnso/SUPA



### Amenity Effect Programme (AEP)

- Payments to qualifying residents delivered last month
- 272 payments totalling \$257,252.58

### SIMP

- All surveys completed
- Report is currently being written, ready for submission to HDC

### Other news

- Staff changes
- Sentencing of company for death on site

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Jeannine Wiki said: There's not really a lot to say. The AEP payments were paid out for the 6 month period of July to December 2017. There were 272 people that were paid a total of \$257,252.58 and that's actually 91 (properties) less than the period from January to June the same year.

Tim said: Why are there less properties this time?

Jeannine said: I guess we're moving into a different direction now. We're not in that main Correnso area, we're moving out to SUPA.

Russell Squire said: This (information) is the total AEP (including Martha), so you have got to remember that we had mining in Martha Pit early last year and there were a lot of recipients out that way (but the latest) didn't.

### **Social Impact Management Plan (SIMP)**

Kit said: We are the most surveyed town in this country. We know this because of the surveys that we got. Danielle knows this because she's been doing some work counting all that up.

Danielle Crawford said: Just to give you an overview of what the SIMP is. Each year we must conduct a Social Impact Management Plan. What that entails is we have an employee survey that we conduct and then some of you might have been called by a group called Phoenix Research in October last year. We take those surveys and we compile them together with a whole lot of data that we have to provide to our external contractors. So Phoenix Research is also providing a report for us. At the moment we have got that data all

in to them and the draft report is currently being (fingers crossed) completed so that we can read it and get it to HDC in the next couple of weeks.

Kit said: One of the important things about the SIMP, and which makes it particularly useful for us, is it monitors certain kinds of things and we then have to come up with mitigating action. If something that is monitored causes concern, we then have to come up with a mitigating action which addresses the concern. Then Mark at Hauraki District Council (who reads the SIMP line by line) comes back to us with, "That mitigating action just won't do it", or, "That mitigating action is okay", or, "I have no comment". So I like it because it's a "checks and balances" and it forces us to do the survey, although I think we'd do it anyway because it's great to have the information. Then the data is made available to HDC and after that it's public, you can have a look at it. The last one was 88 pages long, this one probably won't have quite as many pages, but it's fascinating reading if you want to know about what's happening in the area.

Kit said: Let me give you a real life example. We own 121 residential properties in Waihi, 121 houses which we rent out to people. What would happen *if* we suddenly decided that we didn't want those houses and we were short of capital and we dumped 92 of them on the market. Two things would happen. All the real estate agents would have conniptions, one way or the other, it would either be really great or really terrible. The second thing that would happen is that the property prices in this town would drop like a stone because of over-supply. If that happened, our monitoring would pick that up and we would then have to come up with mitigating actions which would then be checked by HDC. So, in a way what's happening is HDC is checking on the behaviour of the company, irrelevant of what the actual activity is. They're looking at it in broader terms because there might be things that we didn't even think were happening but do happen and we have to figure out a way around them.

Tim said: And the consent says you have to be accountable to the council on that?

Kit said: Yes.

Graham Jurkovich said: My question is about AEP. I don't know how relevant it is now because I heard you say Correnso now has a limited time. I wondered if someone could explain to me – my next door neighbour's house would be as far as say from you to that wall away from mine. He was monitored out at 106 qualifying blasts and mine was 62. How does that happen?

Russell said: The programme uses the data from the vibration monitors around town and monitors are placed in relation to where the blasts are. If your place is where the principal amount of blasting occurs (then they will read it), (but as you move) progressively further away (it diminishes). In the (PowerPoint) slide you will see we have tended to concentrate quite a lot of our blasting in the last 6 months in one relatively confined area. Moving progressively further away from that area, the (qualifying) blasts drop off very quickly.

Tim said: So is it just a short distance that's making a huge difference?

Russell said: It does, because you've got to realise that vibration attenuates quite quickly as it goes away.

(Russell agreed to respond further in his presentation so that the slide showing what he is talking about can be on the screen.)

Mike Moskal said: Just with respect to the SIMP, a few meetings back I asked Andrea about a divestment strategy for the housing and she got a little antsy about the answer. The only answer we got was that there was one, not what it actually was. You mention now that there are 121 - is that an accurate count of the houses?

Kit said: That's an actual count of residential properties.

Mike said: Last time it was 122.

Kit said: We've demolished one and the reason is because it was just not rentable.

Tim said: Mike is your question about the number of houses or the divestment strategy?

Mike said: Well yeah (the divestment strategy), obviously it hasn't been implemented yet.

Kit said: Not it hasn't, that's a very good question. The reason it hasn't is because when we were Newmont and we were shutting down there was a need for a coherent socially responsible divestment strategy that made sense, not only to real estate agents but also to the community so that people didn't lose the equity in their homes. When Oceana Gold took over the last thing they've been thinking about is closing. We are not. Having said that the business development unit people are now about to look at a divestment strategy so that they can, through us, start talking with people in the community saying, "Does this make sense to you?" We don't actually want to be a landlord, it's just the way it is and if we can release some of those properties to the market in a socially and economically responsible way, we will. But that divestment strategy hasn't been formulated yet because Oceana has spent the last 2 years saying, "We're staying open, we're drilling". But what I'd like you to do is ask me the same question in 6 months at the next meeting because by then I would hope that the business development unit people have come up with something that we can share and that would be a good target for them too.

Tim said: Will the company consult with people around that strategy?

Kit said: The business development unit will have to figure out what they think, and then we will comment on what we (Kit's team) think will work. When we've figured that out, this could be the perfect forum to say, "We think this, what do you think?"

Erich said: The question, as I read in the newspaper, is should you even own these properties?

Kit said: You're thinking about the Overseas Investment Office? The legislation, which is before the House for consideration at the present time, restricts the ownership of residential properties to people who are resident in New Zealand or are citizens. Oceana Gold is not because it is registered as an overseas company.

There are two strands to this issue. If we purchase something over a specific value, say a farm or a big area of land, we have to apply to the Overseas Investment Office. That has always been the case. The second strand relates to proposed new legislation. If the legislation stays as it is currently written, if we purchase a house we won't be able to rent it out. This is the same issue faced by overseas-owned rest homes. It means we would go and buy a house because it was strategically important to us but we wouldn't be able to rent it to anyone. So 2 or 3 weeks ago Bernie O'Leary, our General Manager, and our lawyers appeared before the Select Committee and said, "We understand what you're trying to do but (the way the legislation is currently structured it will have these unintended consequences)". So yes, we are very aware of that and it will have an effect on our business if it is passed into law as it is currently written.

Tim said: Like Ryman Healthcare who are also saying they've got a majority shareholding overseas and that would also make it impossible for them to operate.

Kit said: We are hoping they will "carve out" a niche from that legislation and say, "It doesn't apply to this".

Tim said: Taking that back to what you said earlier though, are you still saying that you don't want to be in the real estate industry and you are wanting to look at divesting responsibly?

Kit said: Yes. And if you have a think about it, why do we own 121 properties? Because under the current consent conditions, the Correnso consents required us, if we were mining or stoping under someone's property, to either offer a 5% ex gratia payment or to make an offer to purchase. Many people took up that offer to purchase and I can understand that. Or we have also had places that are so close to the open pit, especially when the open pit was really busy, that people were not happy and we bought their property, so we have what we call buffer zone properties.

Tim said: So the plan is not to be owning property, but it is also not to "dump" what you have but to divest in a way that you are not affecting other property owners.

Wendy Matutinovich said: When you talk about the last meeting, when you owned 122 houses, when was that? Are you saying you haven't purchased anything since September 2017?

Donna Fisher said: In September 2017, as at the last community meeting, we owned 122 houses.

Wendy said: So nothing purchased since September. Is there an intention to purchase more?

Kit said: Yes, we bought one today. But I don't think we have done the lawyer stuff yet.

Wendy said: So it's 123?

Kit said: It might be back to 122 again.

Wendy said: But is there is still potential that you will continue to need to purchase?

Kit said: Yes, yes there is.

Mike said: What is the status of IRP (Independent Review Panel) now?

Kit said: There is no IRP and there hasn't been for quite some time. There hasn't been a need for it. It could be reinstated through the Waihi Community Forum. Since Kerry left I have been given the job of attending the Forum and we were talking about it at the last meeting. It could be reinstated if it needs to and there are still funds there. So I guess the best way of putting it is that it's on hold but it could be cranked up very quickly if it needs to be.

Mike said: What are the plans for the quantum that's left?

Kit said: I think it's about \$4 million. I don't know.

Donna said: If the money's not required it's not used.

Mike said: In the earlier stages there were a lot of people questioning values and pay-outs that were being made at the time. Should there be some kind of restitution required for some of those property owners?

Donna said: Are you talking about top-up?

Mike said: No, just the value of those purchases.

Kit said: Mike, I don't know but I can find out and it would be useful to find out.

Mike said: I think the question was that each time there was a certain number of houses that applied and a number of them were declined and yet now there are still funds available. So I'm saying these people missed out on an opportunity when there really were funds available.

Donna said: At the beginning when we had 23 people apply there was criteria that had to be met.

Mike said: It was 52 wasn't it?

Donna said: (Or 52?) You had to meet that criteria, and if they were declined it was because they did not meet that criteria. Some of them weren't actually even in the Correnso area. In the second round that we had, I think it was something like six people applied to be purchased and in the time it took for the valuations to take place three people sold anyway, one person pulled out, so we only had to make two or three purchases. I am on the Waihi Community Forum, and since then we haven't had anybody apply for a purchase through that IRP process. The people that were on the IRP are still there in the background if we need them, because the company does need the IRP sometimes. It hasn't happened yet, but if there was a property dispute over property damage the IRP can be used for the person to go to as an independent party. So they're still there in the background if we need them. Currently they are in recess because we haven't needed them. (For those that don't know) you could approach the Waihi Community Forum to have your property purchased if you were having problems selling it. If you were in that area and you met the criteria which is on the Forum's website (there's a whole section there on IRP) you could apply to them for purchase.

*Post meeting clarification by Donna:*

*51 Applications were received by the IRP Panel in December 2012 and January/February 2013. Based on the funds available at the time (\$2m) the Panel recommended seven properties for purchase.*

Tim said: Mike is that a live question you would like Oceana Gold to come back to us on?

Mike said: I'm just thinking that the ones who fought hard at the beginning and wanted to sell their houses, and just wanted to leave, could have been compensated in a more effective manner.

Kit said: We'll try and get the information you need and drop it into the minutes in italics.



**Response:**

*“The consent conditions required that IRP funding be made available by the company up to \$4m. It is not a separate fund waiting to be spent elsewhere. If it is not required for IRP it will remain with the company. Any person who feels they may qualify under the scheme should contact Waihi Community Forum.”*

**Staff changes**

Kit said: As you have already heard, Dan is the new Kerry. Kerry was Health, Safety, Environment, Community & Training Manager with Oceana Gold and is now the Group Environmental Manager based in Brisbane. He is now responsible for environmental issues for the Oceana Group including other mines in New Zealand, Philippines and South Carolina. What that means, you will notice, is that Dan is HSE – Health, Safety and Environment and I’m the Community person. I am not a manager. Dan’s a manager, but I report directly to Bernie O’Leary the General Manager. It is as it used to be with Andrea and Kelvyn.

**Oceana Gold safety prosecution**

Kit said: At our last meeting we talked a little about the tragic loss of our friend and colleague Tipowai Stainton in the underground. At the last meeting someone said, “You killed a man” and I remember standing out by the door there and thinking, “Yes we did, we really did, we killed someone”. It hasn’t been easy to live with. People underground remember him on a daily basis. On Monday, in the Tauranga Court, we will plead guilty, we will accept full and total responsibility and we will accept whatever sentence is given. We have worked extensively with the family. Sharon who used to work with Tim was the facilitator at the restorative justice meetings. We have tried to make sure that Tip’s whanau – and by that I mean extended family, his mum and his dad, his partner and his son “want for nothing”.

We need to make to make sure that never happens again. Tip was starting to backfill a stope in the way that used to be standard practice, by dropping the first load of waste rock at the edge of the stope but the bogger he was driving went over the edge. After 6 months of investigation and work, Oceana Gold have changed their practice so that before they start backfilling a stope, miners (who have to be tethered if they are within 5m of the edge) drill three big holes in the ground, over 1 metre deep, and drop big steel bollards into those holes as a barrier before the edge. They tested this method by intentionally running a remote control bogger into the bollards and they didn’t budge. Unfortunately it wasn’t till after Tip died we figured that out. On Monday we will be in court to face our penalty for that and (in comparison to Tip losing his life) that doesn’t matter. I apologise for the emotion it’s just that it’s pretty shitty.

Mike said: If you could operate it remotely why couldn’t you operate your first drop remotely?

Russell said: There is a rule about operating machinery under supported ground – if you’ve been underground you will have seen the shotcrete lined tunnels. The area where you’re driving the bogger up to start that work is under a tunnel. So the perception at the time was (that it is okay to drive because) you are actually in a place where you can drive. Whether you think about what’s in front of you or not is another thing.

Tim said: Re-capping on what you were saying Kit is that the main question there is, “What is it about Oceana Gold’s systems and processes that allowed this to happen?”, not that there was any intentionality. It was just the systems and processes that needed to be improved to make it safer.

Kit said: Yes and thinking, “It’s always been done this way and no-one had ever been hurt, this is what we’ve always done.”

Item three: Environmental overview

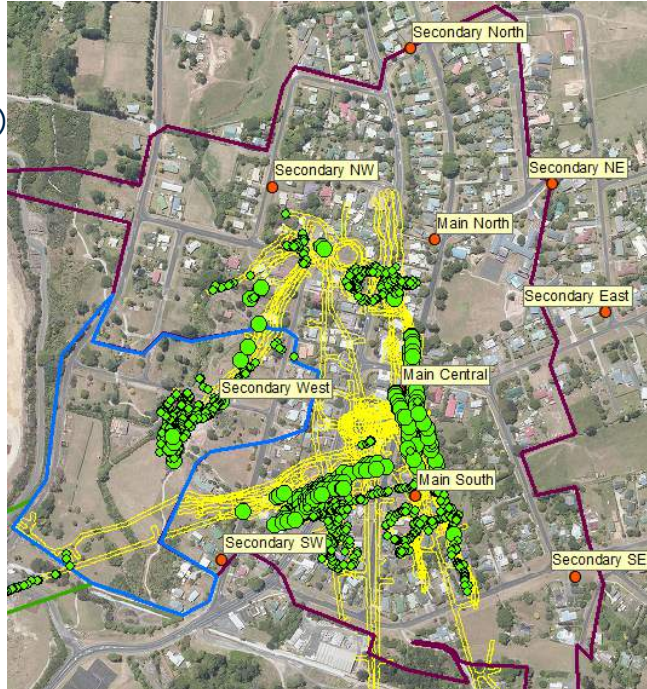
Vibration management

# Correnso/SUPA



## Vibration

- Six-months to date performance
  - Development blasting (288 events)
    - Average 0.62mm/s (consent limit 2mm/s)
    - 95 percentile 1.07mm/s (consent 5 mm/s)
  - Production blasting (122 events)
    - Average 2.23mm/s (consent limit 3mm/s)
    - 95 percentile 4.11mm/s (consent 5 mm/s)



Russell said: The development blasts in the morning and evening have quite low averages. The production blasts have an average of 2.23mm/s, so you will be feeling them especially those of you who live directly above them. The 95 percentile limit is based on one of our consent conditions, so that's the upper level of the blasts and that's just over 4. I mentioned before about modifying this table. You will see that the green dots are two different sizes. The small green dots are the development shots, and the large ones are the production blasts. I apologise if it's a bit tricky to find your property location. You can see in the last 6 months where we're been blasting in here where people are living. So if I think of the people further to the north, we've completed most of this area here so it should be getting quieter to the north. We haven't done an awful lot of blasting in the southern end either in the last 6 months. So it is really those people in the middle and also in the Daybreak area out to the west that have been getting the predominant volume of stope blasting at the moment.

So when you look at the graphics that you see come out in the East Ender of where we're mining and things like that, it doesn't necessarily represent exactly where we are blasting at any one time. For the sake of the scale I have excluded the drive off to the bottom left for the Martha development drive. I have got monitors sitting over the top of them at the moment and I've had them drop the trigger level down to 0.3 to actually be able to get a reading from them, and they're coming in at about 0.3 to 0.4.

Tim said: Do you know why Russell?

Russell said: They're just development shots and that's typically what development shots do. They're 0.6mm/s, and when I say 0.6 the reason we get these higher vibrations is because most of our development shots are multiples. So we will fire 3, 4, 5 or up to 15 blasts at once in the development shots and they'll be all over different parts of the mine but they're all small. So I guess in a way we subject everybody to the same amount but it's a little bit higher than out to the end of the drive where there's only one shot going off.

Graham said: Can you point out Gladstone Road there?

Russell said: Gladstone Road is pretty much underneath the main part of the blasting for Correnso right here. If you can imagine, since there's so much blasting in the middle, the vibration levels actually drop down quite quickly as you move away. It's an unfortunate consequence I guess that the closer you are the more you're going to be subjected to the blasts. The other factor to do with the AEP, for those of you that are interested, is the payment rate. So for (I think), 1.5 to 3.5 mm/s (off the top of my head) it's about \$18, from 3.5 to 5 mm/s it's \$36, above that it goes up to \$54, at the upper level it's \$355 if it's above 6. So if we get a high level blast and people live over the top, that's why some of those people seem to get fairly high payments but the vibration levels drop away very quickly once you drop past that level. And it's actually, when you think about it, a drop from \$355 at 6 to \$18 at 3.5. It's not very far away but it's quite a difference in payment.

Donna said: The people getting the biggest effect should be paid the most money. (People agreed.)

Russell said: Yes, that's right. The AEP rates were designed as part of the consent process. The way the AEP was formulated and processed was part of the consent process, and the location of the monitors was all part of the consent process. We are always, at the same time, looking at ways of improving them if there's a better way and we keep on monitoring. As some of you will know I've had roving monitors in various gardens around here and I'm always looking for that "sticky spot" that doesn't quite match up.

Tim said: Why is the development blasting less?

Russell said: When we're doing a development blast we are driving a tunnel of 5m by 5m and we're moving it forward 3m. That is roughly 75 cubic metres of material and doesn't take a lot of explosives. If you put too much explosive in you actually start to weaken the walls. So the blasting is a real art. We don't want to shake you guys; we only want to shake the ground that we want to break up. We design our development blasts to keep the vibrations where they'll do the work that we want to do which is break the rock, too much weakens the walls. The production blasts can be 20m or 30m long, 15m high, 5m wide – much, much larger – and we want to drop them, we want to break them finely enough so that they drop cleanly into the drive below. We don't want it to "bridge" and jam up, and we want it fine enough to be able to dig out. So we use more explosives in the production blasts. They're done during the daytime while people are awake because we don't want to upset people unnecessarily and we believe people are more used to the bigger blasts at that time.

Erich said: On 13 and 14 March you advertised some blasting and nothing happened. Today you said you were blasting in the north only the reading was only in the back. There are a lot more problems, everything is against the consent conditions. I've got 37 ..... 55 violations from 5 October onwards, with no explanation. Every time I talk with you I get told it's human error.

Tim said: Erich what are you worried about? What's your concern?

Erich said: That they blast at 14:20 (outside of the time that's allowed).

Russell said: We are permitted to blast between 7am and 8pm. We are to make our "best efforts" to blast between 7am and 8am, 1pm and 2pm, 7pm and 8pm. But there are times when, for whatever reason, they come up, they are ready to blast, they hit the button and nothing happens. They go, "We're stuck, we've got to go back down". You don't want to leave explosives sitting around too long underground. The longer you leave them, the more risk there is of something going wrong or having to drill out the whole thing and start afresh and we want to keep on producing ore. So we say, "Hang on a moment, we can get this sorted, we can blast a few minutes late". If we can't do that, if there's something too wrong, we say, "Right, what we can do we'll do now, and we'll go and sort out the rest out later on".

Tim said: So Russell, the consent says that there's a window there and that you've got to make your best efforts to fit between it eg 12pm and 2pm. And Erich you're saying there was a 2.20pm (outside that window). Mark and Leigh, from the Hauraki District Council position, is what Russell says correct? That it's the case that they've got to use their "best efforts" to fit between those numbers?

Erich said: No, there is no exception.

Tim said: I'm going to ask the council the question and I'll come back to you.

Mark Buttimore said: The requirement is, that they have to use their best endeavours to blast within those windows. At the appeal and during the consent hearing there was an acknowledgement that that's not

always possible to do so every time, and generally speaking if they are going to be late Oceana ring me and explain the reason, and seek my approval or otherwise.

Tim said: So Erich why are you saying the consent says there's no variation possible? Do you have a copy of the consent there?

Erich said: There's no variation. On my laptop, yes I do.

Tim said: Lets answer this question when we can look at the consent. The question is whether the consent allows Oceana to blast outside those times having used its best endeavours to fit within those windows.

Later in the meeting (once he'd had a chance to find the consent condition) Mark said: Just a point of clarification. The actual consent condition for blasting says no blasting between 8pm and 7am. So those are the times it's prohibited. The three windows were negotiated by the appellants, the council and the company and the wording was agreed with the Environment Court that the company will use its best endeavours to meet those windows.

Erich said: No it's not like this.

Mark said: If you go onto the website you'll see it in the vibration management plan.

Tim said: We'll get the piece out of the consent and paste it into the minutes, so it'll be a direct quote. Erich we can do this after the meeting?

**Response:**

*Below are relevant extracts from the consent conditions (the consent itself is available on the HDC website: [http://www.hauraki-dc.govt.nz/assets/district\\_docs/mining\\_docs/CorrensoConsent.pdf](http://www.hauraki-dc.govt.nz/assets/district_docs/mining_docs/CorrensoConsent.pdf)).*

*Condition 14 below shows Mark Buttimore's clarification. Condition 15 confirms Russell's view that Oceana must use its best endeavours (the clause is actually worded "... to the greatest extent practicable").*

**14. Impulsive Vibration from Blasting**

- a. *There shall be no more than three blast events per day, from Monday to Saturday and between 0700 and 2000.*
- b. *No blasting shall be undertaken at night (2000 to 0700 the following day), on Sundays or on public holidays.*

**15. Minimisation and Mitigation of Blasting Impacts**

- a. *In addition to complying with the requirements of Condition 14, the consent holder shall minimise, to the extent practicable, the impacts of blasting vibrations for the Community. The measures to be applied in this regard shall be set out in the Vibration Management Plan (Condition 19) and will include details of how the following requirements will be achieved to the greatest extent practicable:*
  - i. *Restrict the duration of blast events to the minimum consistent with safe and efficient mining operations;*
  - ii. *Fire the production blasts within the 1pm meal break;*
  - iii. *Fire the three defined daily blast windows at shift changes and meal breaks;*
  - iv. *Implement timely blast notification procedures;*
  - v. *Report blast vibration results in a timely manner.*

Erich said: Another question is, a lot of times, there's no number between the blasts – 37 times.

Russell said: The way the number comes up on the web page is from the button that the guys push at the portal, before they blast. When they push that button it automatically sends a message to the computer, to the website, to the database and that populates the website. So at that time, even if there isn't a vibration that occurs, or no significant vibration, there is still a documented blast. It is still a human process. We did try initially to have the button in the same place, or the same button, as the one they push when they fire. But when you're in charge of explosives you don't like having other electronics anywhere near you. You like to have things totally devoid so you're just dealing with a pure blast. We have this process where you push one button then you push the second button (about 1m apart), it relies on human concentration, it's not perfect.

Tim said: Russell I can remember you explaining at the very beginning, the first meeting, that you'd developed that process so that you didn't end up with the situation where if there was, for example, no blast vibration on a particular monitor that it didn't look like you were pretending there was no blast. You needed to tell the computer you were blasting so it would know regardless of whether it detected vibration?

Russell said: Yes. The requirement is to put the last 10 blasts up on the web page. I think Mike (Moskal) might have actually helped us with this initially when he pointed out that, when we didn't have this firing notification process, only the blasts that were triggering the monitors were coming up on the web page. Part of the process of resolving this was having this button to push and it would actually go, "Blasting" and then irrespective of whether there was a relevant vibration or not, something would come up on the web page.

Tim said: Thanks Russell. Another question Erich?

Erich said: 5:48 the music plays or 14:35 and no blast, 17:40 the music plays and no blast, and 16:40....

Tim said: Erich, so we can capture this as an issue, and get an answer from Russell, your problem is that the music is a warning that there's going to be a blast, and sometimes it plays and there's no blast, and sometimes it doesn't play?

Erich said: Yes.

Russell said: I've recently become aware of that and I'm trying to find out what's going on with that. Today I was actually at the portal. The system up there that does that transmission is a pager, when the guys hit the button it plays a tune. The power supply for that had conked out so I've replaced that. I'm not sure whether the guys are trying to figure out whether the system is working or not, they're hitting the button and nothing's coming through at their end. But alternatively there may be something wrong with the electronics as well. So I apologise for that.

Maxine Gilchrist said: How come he hears it at 5.48 in the morning – we've got the thing and we don't hear it?

Russell said: Does it work correctly for you?

Maxine said: As far as I know it does, we hear it when there are blasts and we're not far from where he is.

Russell said: I also need to investigate this, the way the system works is there's a (radio) transmitter at the portal, it sends a message to a couple of repeaters that send a radio signal across town, and that's what everybody picks up. What I need to try and figure out (and I'm not an electronics or radio whiz) is whether there can be interference. It's just a radio signal, whether there's a short circuit somewhere in the system. I'm not sure, I apologise for that and I'm trying to find out what's going on.

Tim said: So if people are having inconsistent messages then they should ring 0800 92 44 44? Would that help you work out what the problem is?

Donna and Jeannine said: Certainly, tell us.

Russell said: And if it annoys you enough you can turn it off with a switch at night and be confident that there won't be a blast before 7am or after 8pm anyway.

**Response:**

*Russell said: The warning system in residents' homes is not infallible and relies on the shot-firer manually pressing several buttons (one for the firing time onto the public webpage, another blast notification button for the radio coasters into residents' homes, and a third to actually fire the shot).*

- *There are occasional times when the shot-firer may simply forget to press the appropriate buttons (looking back through the records, this may be about 5% of the time).*
  - *When the firing time button is not pressed, the radio may still play (if the blast notification button is pushed) but no blast number will go onto the webpage because the firing time button is what triggers the entry on the webpage.*
  - *When the blast notification button is not pressed, no radio will play, but (if the firing time button is pressed) there will be a blast number on the webpage.*
  - *If they do only fire the shot and push no other buttons. Russell enters the blast numbers into the database manually when he becomes aware of the omission.*
  - *We have in the past grappled with trying to make a system that is fully automatic when a shot is fired (ie just one button). But even a tiny risk of the blast being unintentionally fired by faulty electrics is too big a safety risk.*
- *There have been recent reports of the radio coasters playing at odd times of the day and night that are well outside normal blast times; I can't explain this. I have been in communication with two electronics*

specialists to determine if there is a way to find out what may be going wrong and how to check out the system. Issues may include: atmospheric interference, corrosion causing a short-circuit, insect nests, faulty coasters. I'm waiting for advice. If the coasters are waking people up at odd times then they can turn the coaster off from 8pm to 7am in full confidence that there will be no blasting during that time, and that the vibration monitoring system is still working 24 hours a day.

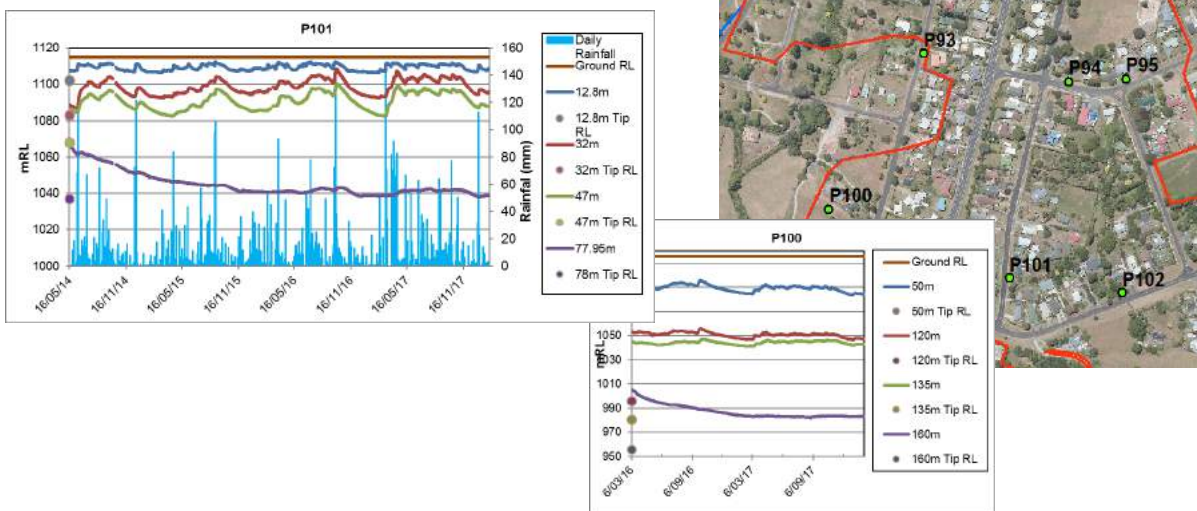
## De-watering and settlement management

# Correnso/SUPA



## Dewatering

- Established piezometers (e.g. P101)
  - » Shallow monitors respond to rain
  - » Deep monitors slow response
- Piezo P100 (est. 2016) behaving as others



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Russell said: The next slide is on dewatering. There's not a lot to report here, just an update of the charts. The left hand (chart) is the one that's most obvious to people. That's the one at the southern end of Gladstone Road. What happens is there are sensors down groundwater bores, anything from 12m down to 80m/100m down. They measure water pressure and the change in water pressure and determine what the water level is in that aquifer that they're monitoring. The shallow ones are responding very quickly to rainfall, those blue bars that you can see jumping up from the baseline are the daily rainfall figures for the last 3 years. When there's a lot of blue all of a sudden the uppermost lines jump up which means that the groundwater is recharging, as you would expect from rainfall. The interesting thing for the mining operation is that the lower one, which is in the andesite down where we're mining, doesn't respond strongly to rainfall and that's because there are several sealing layers of muds, clays and volcanics between those upper aquifers and the lower aquifers.

Tim said: So somewhere in here there is a cap that means that the results down here are independent of the results up here.

Russell said: Not 100% independent. You can see how there's a very slight, slow reaction after quite a lot of rain but by and large it doesn't fluctuate.

Tim said: So you are watching the water levels in the ground carefully and there isn't a problem?

Russell said: The upper levels are staying the same which is the critical thing that we're always looking at. For those of you that can remember, we purchased some properties a number of years ago because just before Correnso started, we had drilled an exploration hole and the water drained into a lower aquifer and caused the land around it to settle and caused structural problems for those houses.

Tim said: So if the lines at the top of the graph take a dive it would tell you the ground was drying out and it would be an issue?

Russell said: That's correct. The land is part solid and part water otherwise your vegetables wouldn't grow. If you take out too much water the ground will shrink and you'll end up with cracks and settlement.

Tim said: Are there questions about the water levels, the monitoring and the de-watering?

### Six monthly settlement survey

## Correnso/SUPA



### Settlement

- Eighth survey of markers in Nov 2017. No settlement issues for Correnso.
- No change to minor tilt (1:879) detected around settled area in Slevin Park (see arrow).



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Russell said: Every 6 months we go around and do surveys. Most of you will have seen our team at one stage or another going around from one mark to another. They measure them with a specific (survey) technique and that gives us our settlement. There haven't been any significant changes over Correnso, other than the little area in Slevin Park. Those of you who walk through Slevin Park will have seen the fenced off area which has settled. We are not convinced that that has to do with de-watering, there could be other services or something happening there. But it's well away from any residential areas and it's just a matter of interest at the moment. The last survey that we did of that area showed that the tilt in that area hasn't changed. It looks like it has moved a little (2mm over 30m) and then stopped. We'll keep monitoring anyway.

Tim said: And you looked and council are watching it and it hasn't moved since then?

Russell said: Not from our records, I can't speak for Mark's.

Mark said: No, we're not noticing further movement. There could be a number of mechanisms that caused that. It's in the high hazard zone, it may be a slow-forming sinkhole, it may just be the ground de-watering. So it's wait and see.

Clive Hallam said: Just up from where I live in Kenny Street, Opus have been monitoring some movement or something, do you know anything about that? Is there a trig point or something there?

Russell said: No, a trig point?

Clive said: They've had GPS or something on a tripod and a vehicle parked there every day for a week now,

Tim said: Is it Opus doing that? Does council know what that might be about?

Mark said: Not this arm of council, no. I can ask.

Clive said: I went and talked to the lady who sat there all day because I thought she was lonely. There's obviously some movement going on there or they wouldn't be checking it. She said she was taking readings of this point in the ground, there was a cap in the ground that was open and you've got this thing over the top of it, obviously hooked up to some satellites to see if the ground was wiggling around underneath the satellites.

Graham said: They are survey holes that they're working on.

Tim said: Lou's going to capture a question that we'll get an answer to before the minutes go out, which is, "What are Opus doing in Kenny Street, Gladstone Road and Mataura Road, and anywhere else?"

**Response:**

- *Last month HDC employed CKL surveyors (not Opus) to take precise levels at a number of sites around Waihi (from Rifle Range Road through to the eastern edge of town).*
- *The survey measurements are taken at pre-established points – survey pins set in concrete on the road curb.*
- *The council monitors these points every year to help determine if there is ground movement or settlement in these areas.*
- *The programme of survey work is undertaken following a GNS report several years ago that recommended that council undertake regular monitoring of ground movement/settlement in the Waihi area.*
- *In due course the council will provide the results of the survey work to Oceana Gold.*

**General questions**

Mike said: While Russell's still there can you go back to the first slide for half a sec? The yellow I'm assuming is the drives and everything? (Russell said: Yes.) Kit was saying you're getting very close to finishing with Correnso, but obviously not in that area. You can see there's quite a bit happening out the left hand side there, is that just access drives or is that something that's going to be mined as well?

Russell said: [Back to vibration slide.] The yellow lines are the development drives. The southern and northern areas have been largely completed so the focus now is finishing off the central and upper levels of Correnso. We've mentioned before about starting at the bottom and working our way up. The other thing probably everybody neglects to conclude is that when you go to the end of the drives and you start mining the completion is when you come back to the centre. So, centre and top is towards the end. When Kit mentioned we're close to the finish, that's because we are close to the centre. And we're also heading out into Daybreak (left towards the pit). A lot of Daybreak has already been completed as well. The new life (of mine) for those of you that may celebrate or commiserate, will be Christina and Empire which is this area further out over Roycroft Street and Dobson Street. The drives are there already, but there will be stoping.

Tim said: Mike, was your question about where these are going?

Mike said: No it was more about the life of the Correnso consent itself.

Kit said: In terms of the actual physical work, the current mine plan gives us to about 2019.

Mike said: That's everything within the Correnso consent area?

Kit said: Yes, but I will add the caveat, as is often the case if they find some little thing that they didn't know was there (and we've just taken delivery of what's called a narrow vein boggler which is a tiny little digger), if we found something and it was there and it was inside the boundary of Correnso and it was do-able we would. So if we get to December 2019, or we get to January 2020 and we're still going, it's because we've found that. But the current mine plan, as of right now based on what we know, is November 2019.

Mike said: But you've got until 2029?



Kit said: I think you're right.

Kit said: Because of the way Easter falls and the fact that we are rather busy right now, don't be surprised if the minutes take a couple more days. Normally we try very hard to have them out to you within 2 weeks – Lou and Tim do their very best and then we go from there. It may be that you get them slightly after Easter. But that doesn't mean we have forgotten you.

Tim said: Graham did you get your answer about the vibration difference between you and your neighbour?

Graham said: Well it doesn't matter whether it's me and my neighbour, or someone else and their neighbour. Regarding your point that it dissipates – I just wondered if that was based on fact or just on human reckoning?

Russell said: The assessed vibrations that work the AEP are based on computer calculations using the known vibrations from the monitors, the locations of the blasts and the locations of each resident. That's for every blast, so it's not just a blast event. When these development shots go off, and there could be up to 15, it will do those 15 different calculations on every property in the area using nearby monitors and whatever readings they got.

Graham said: So we must just trust the company?

Russell said: No, the vibration monitors read what they are, the computer algorithm reads what it does. That calculation has been established by two independent consultants – one from the council and one from us. They have determined the computer programme and the computer formula that determines the vibration levels. That's done completely independent to Oceana, I don't have a hand in it, and no-one in the company has any hand in what the vibration readings are in terms of every individual property.

Mike said: Just speaking about the algorithm – did Cameron McKenzie (HDC expert) participate in amendments because didn't they amend that formula?

Mark said: Yes they did and yes Cameron was part of that. That review was based on the actual experiences and the actual readings.

Russell said: That algorithm was not so much for the AEP. That modification was for the acceptance of what you call a "null" vibration. We have a threshold of 0.75 set on our monitors so that they don't go off with every vehicle going past, and we were using a figure of  $\frac{3}{4}$  of that as part of the calculation for the averaging. That's what the discussion with Cameron was about.

Vivienne Pickford said: I hear sirens at home, random, what are they?

Russell said: If it's 12 o'clock it is the mill. The mill puts a siren out every day at 12 o'clock as their test of the alarm system. It sounds the same as the fire alarm so if it's not at 12 o'clock it's probably town.

Vivienne said: It's random, you can't really pinpoint it.

Alan Purvis said: It's 12 o'clock on a Tuesday.

Russell said: There's a Tuesday test pit evacuation siren.

Tim said: We will see you for another SUPA/CEPA meeting in 6 months' time.

Kit said: With scones.

Mike said: Kit, you mentioned there was a big announcement. Is there a date for that?

Kit said: Yes, but I can't give you the date.

Stuart Severn said: How will that be announced?

Kit said: Radio, Waihi Leader, public meetings, open days, mail drops, Donna and Jeannine and Danielle and Phil talking to people.

Tim said: Can I just ask Kit, we've got this email address list. Can the people who attend this meeting be included in some sort of information circular?

Kit said: Yes they could. We could drop you that by email on the announcement date, no problem at all.

Jeannine said: For those who didn't put your email address on the list, please come back to me and put your email address on the list.

Tim thanked everybody for their attendance and participation in a good meeting.

**The meeting concluded at 5.50pm.**

<b>Attendance register</b>	
Kit Wilson	Russell Squire
Danielle Crawford	Jeannine Wiki
Donna Fisher	Daniel Calderwood
Leigh Robcke	Mark Buttimore
Clive Hallam	Vivienne Pickford
Dianne and Alan Purvis	Maxine and Dean Gilchrist
Stuart and Nita Severn	Sue Moore
Peter Sherman	David Carrington
Dee Stevenson	Di Watt
Alan Watt	Helga and Erich Schmidt
John F Wilson	Greg Sheppard
Graham Jurkovich	Mike Moskal
Murray Elliott	Wendy Matutinovich
Niria Gerbich	Rhonda Munn
Tim Clarke	Louise Fielden
<b>Apologies:</b>	
Trevor Skinner	Eric Rhodes