

MONDAY 28 JULY 2008

[10.00 am]



HEARING RESUMES

CHAIRMAN: Yes good morning everybody. Yes well we've read the memorandum from Mr Robinson --

MR ROBINSON: Thank you sir.

CHAIRMAN: -- which puts quite a different context on the course of proceedings from now onwards.

MR ROBINSON: I imagine so sir, but that indeed was the issue I want to discuss with you about how that would play out in practice.

CHAIRMAN: Yes.

MR ROBINSON: But I suppose – but equally I should invite Your Honour's advice. Do you need me to take you through the memorandum or --

CHAIRMAN: No, no.

MR ROBINSON: -- that covers the –

CHAIRMAN: Yes that was very clear thank you very much we understand it. Perhaps before we look at the progress of this hearing we should perhaps discuss the memorandum. And there's just one or two little matters that we'd like to raise to give the parties an opportunity to consider and that can be done during the course of the day. And we can then - also when

we've done that we can perhaps discuss the future progress of this hearing which will I think be truncated quite considerably. So you may be seated thank you Mr Robinson.

MR ROBINSON: Thank you sir.

CHAIRMAN: Just before I make any comments is the Regional Council representative here? Mr Brockelsby have you had an opportunity of looking at the memorandum?

MR BROCKELSBY: No sir I haven't.

CHAIRMAN: No well we'd be quite keen on your thoughts of course, because you'll be the – the organisation which will be responsible for implementing – not implementing, but for being the guardian angel of these consents. So we need to know what the Regional Council attitude is. Thank you Mr Brockelsby we'll give you perhaps today to do that?

MR BROCKELSBY: That's fine.

CHAIRMAN: Would a day be sufficient?

MR BROCKELSBY: I'm sure it will be.

CHAIRMAN: Then you can come back tomorrow with the Council's – Council's views?

MR BROCKELSBY: Yes. No problems.

CHAIRMAN: Is the Taupo District Council here?

MR HICKMAN: Yes

CHAIRMAN: Now this memorandum doesn't effectively impinge on any of the Taupo District Council's consents. But have you got anything you wish to say?

MR HICKMAN: Sir, in respect of the regional consent we have an interest.

CHAIRMAN: Yes of course.

MR HICKMAN: But – and I'm just in the process of reviewing the memorandum just to see where it fits in terms of the existing consent framework.

CHAIRMAN: Well similarly, we'll give you today to have a look at that.

MR HICKMAN: Thank you sir.

CHAIRMAN: Now Mr Lang?

MR LANG: Yes, thank you sir. I've had the opportunity of discussing the memorandum with my client and subject to a further discussion I'd like to have with him today it seemed that that addresses my client's concerns in relation to his issues and I have sent to the court a memorandum restricting – advising of a restriction of my client's case to the question of air emissions particularly for the Poihipi Power Station.

CHAIRMAN: Yes, yes.

MR LANG: But if there's any change in that following the discussion -

CHAIRMAN: Again, we'll give you today to have a – to have that opportunity to sort that out.

MR LANG: Thank you sir.

CHAIRMAN: Since we only got them late on Friday, so I don't expect people to work all weekend.

MR LANG: That's appreciated sir.

CHAIRMAN: Yes, thank you. Now has any other party got any matter they wish to raise relating to this development?

CHAIRMAN: Yes. Well if I could just indicate the Court's concern, if you like, about one matter. Sorry, the Board's concern about one matter. We're all creatures of habit aren't we? And that is this: You may recall when Mr Robinson opened I flagged with him the policy provisions of the policy statement and of the regional plan and one of the reasons I did that was because the policy provisions of both documents were designed first to ensure a depth of management to enable the reservoir to be managed in a way – in a controlled way, to ensure that the sustainable resource was sustainably managed. And one of the matters during the debate of sustainable management was the multi operator issue. And those that were involved in that hearing you will recall the witnesses for the Regional Council and Mr Milne, who was counsel for the Regional Council, advancing in quite strong terms an opposition to multiple operators. Their main concern being that it wasn't the Council's job as an authority with responsibilities under the Resource Management Act and to be the arbiter – arbitrator, or arbiter of disputes between multiple operators. Hence the provisions relating to mechanisms for multiple operators being included in the policy provisions of both documents.

We have had a brief discussion about that during the course of the week as we have been reading the evidence. And it seemed to us that the very issues that we were being asked to decide, as between Geotherm and Contact are really matters that should be covered by a multiple operator agreement and are really matters that Environment Waikato are trying to avoid. If you look at the – if I can just refer the parties to the rule 7.6.1.5 of the plan which is the rule, which is of course under which the discharge consent presently applied for by Contact is made. And it's a discretionary activity. And subject to, and small Paragraph A says: "the discharge is exceeding 6000 tonnes per day, a draft discharge strategy forming part of the draft System Management Plan being prepared and provided to Waikato Regional Council is part of the documentation supporting the resource consent application in accordance with the policies and other methods of this geothermal module."

[10:10 am]

If we can just briefly go to the Policy Statement, Policy 2 page 83 requires an integrated system management for development geothermal systems and says that each development geothermal system shall be managed in an integrated manner through in sub-paragraph IV a mechanism to ensure coordination and make cooperation between all consent holders for large takes. And of course policy 4, on page 16 of the plan reiterates the need for an integrated System Management Plan and policy 5 relates to multiple operators. The words used in both the plan and in the Policy Statement relates to consent holders having the mechanisms in place rather than multiple operators. And it's our preliminary view that Contact being an applicant for a consent on the resource – on a reservoir or a system – a system in which there is already another consent holder is required by the policy provisions of both documents to have some

mechanism in place for disputes between it and the other consent holder in relation to the discharge consent. And there is no provision for such mechanism to be put in place under this discharge consent.

There is a mechanism in the Geotherm consents because they were second in time to the initial consents granted to Contact but this is a new consent with an existing consent holder and it seems to us that Contact must be required to have a condition requiring it to have some mechanism in place. Which would dovetail of course with the Geotherm mechanism in place but it would give both parties more than just a moral incentive; it would give them a legal incentive to both get that mechanism in place.

Now I thought it was best for me to explain our thinking at this stage and I would ask the parties to give it some thought. We may be going up the wrong track. Because this is - these documents are rather complex but it seems to me that to give effect to the policies which were designed to avoid the need for the consent authority to be involved in spats between consent holders the application of the wording of the documents in the manner that I have just spelt out is appropriate. I'd particularly like the views of the Regional Council on that matter. So I'd be grateful if the parties could give some thought to that over the next 24 hours and make appropriate submissions if they deem it necessary. I hope I've made myself clear.

So that's that matter. The only other small matter is the matter that's been – was raised by Mr Dennis Nugent relating to the general conditions of consent and he was – he raised the matter with the Board that perhaps for the purposes of ease of reference the general conditions as they apply to this consent should perhaps be incorporated into the consent because of course the take consents expire in 2026. This consent carries on for 35

years and just for ease of reference it would perhaps be appropriate to have the conditions in the document. Was that what the issue was?

MR NUGENT: Yes. Thanks. And the other part of the issue is the existing general conditions referred to the consents they apply to and of course (inaudible) consent applications can't alter (inaudible) in the future there could appear to be in ambiguity as to whether they do apply or not (inaudible).

CHAIRMAN: Yes. Thank you for that. Incidentally if any party wishes to consider what I have just said I was really reiterating what the Environment Court said in its policy decision A47 of 2006. And there is a section headed Integrated System Management and Single Operator and the reasons behind the policy provisions are set out in that section from page 82 onwards of the decision. Yes well thank you for that.

CHAIRMAN: Now where do we go from here Mr Robinson?

MR ROBINSON: Sir, perhaps if I could just invite Your Honour's direction or guidance. Of course we would think about very carefully that because this is policy issue this is principally a matter for my witness Mr Chrisp and I think my suggestion would be – I think that we were getting some mixed signals as to whether the Board itself wanted to talk to Mr Chrisp late last week. But in view of the points Your Honour has raised I think that I would wish him to appear and to speak to the issues that you –

CHAIRMAN: Well that's why we raised them.

MR ROBINSON: Indeed. And in terms of –

CHAIRMAN: Better to raise them now rather than after the hearings.

MR ROBINSON: Yeah. From a legal perspective --

CHAIRMAN: Yes.

MR ROBINSON: -- I wish to make a submission that the only issue would be is it appropriate for me to do that at the end of the Contact evidence - or should I say that and perhaps cover it in my reply?

CHAIRMAN: Yes, well it would be preferable for you to cover it as early as you possibly can so as the other parties, particularly - Geotherm may not be interested now, it's mainly from a -- because it appears -- it's mainly a precedent matter. There could be other problems in future where this may arise and it needs to be sorted.

MR ROBINSON: Look, if the Board is happy for me to do so then I'll address --

CHAIRMAN: So there may be -- there may -- the Regional Council may wish to have comments on it because it affects them and perhaps the Taupo District Council as well.

MR ROBINSON: So I'll make submissions -- appropriate brief submissions on that at the end of the Contact evidence. The only other -- so if that's that issue the only other issue I'd appreciate the Board's guidance on is as a result of Geotherm Group having dropped out there are four witnesses who -- my witnesses who were the subject of notices to cross-examine by Geotherm, but by no other party, and they are Professor O'Sullivan, Mr Malcolm Hunt our noise man, Mr Carey on the System Management Plan, and Mr Daysh presenting evidence on conditions. I'd be grateful if the Board could give -- come to some consideration as to whether it wishes to ask questions of some or all of those witnesses.

Professor O'Sullivan is here and available when required. Mr Hunt is travelling from Te Awamutu tonight to the hearing venue, as is Carey and Daysh are going to be here in any event so they're less significant. So that's the first point and the other – if I could have some clarity as to whether the Board wishes to talk to Mr Bromley? I think the indication we had through the hearing administrator was that the Board did have some uncertainty about that. But again Mr Bromley is local based at Wairakei so that's neither here nor there it's – he's only a phone call away.

And lastly, because I have now filed two memoranda suggesting additional consent changes, the question I have for the Board is whether it would assist the Board if Mr Daysh produced a complete red line of the conditions so there was an up-to-date version on the table? He's done so electronically, so it's just a matter of printing it out for the Board.

[10:20 am]

CHAIRMAN: Could I suggest we just leave that until tomorrow?

MR ROBINSON: Indeed and –

CHAIRMAN: Until the Regional Council and the other parties have had an opportunity of having input into it?

MR ROBINSON: That's right and I'm thinking that given the issue raised by Mr Nugent I'll ask Mr Daysh to think about that too.

CHAIRMAN: Yes.

MR ROBINSON: And so as a – before I should make the offer I think the answer is to ty-ho for the moment until the shape of whatever further changes are required is a little clearer.

CHAIRMAN: Yes.

MR ROBINSON: And those are all the preliminary thoughts I had and I'm ready to call my first witness.

CHAIRMAN: Yes, well I'm just trying to think for the future week. You'd only need to call a witness if the Board wanted to ask questions. Well we'd better retire briefly and –

MR ROBINSON: Yes it is a little circular.

CHAIRMAN: Because we – and make that decision first. Otherwise, as you say, it's going back to front. So we'll do that now. But I wonder if we could just give some thought as to the rest of the week. What I was thinking was it looks like most of the evidence is falling by the wayside. When I say evidence, most of the contested evidence is falling by the wayside. The other evidence still remains on the record of course. And since we are all here as a Board from all over the country if we finish easy it's my keen interest, not only for myself, but for other Board members and I'm sure for the parties to have a decision out by the end of the week. if we've got time. I've asked the Ministry of Environment assistant that we have here to see if she can obtain some clerical staff, mainly because I'm not a typer and can't type fast enough, and to see if we can spend two or three days, if we have it, towards the end of the week in writing a draft decision. And if we get that done by the end of this week it means the Board won't have to meet again and we can just merely have to get it formatted properly and then issued. So I'd be grateful if parties could think

– I've simply raised that so that the more efficient we can be the better chance we have having a decision out if not the end of this week then next week. Yes so we'll adjourn briefly and make a decision as to whether any of the Board members wish to question any of your witnesses and in the event that they don't, I think we'll probably be adjourned for the day won't we?

MR ROBINSON: There are three witnesses that my friend Mr Lang has given notice to cross-examine --

CHAIRMAN: Yes

MR ROBINSON: -- being Mr Kilty, Mr Stephenson with a P and Dr Craig Stevenson.

CHAIRMAN: Ah yes, yes.

MR ROBINSON: And so if nothing else --

CHAIRMAN: We can – we deal with them.

MR ROBINSON: -- we deal with them and with Mr Coombs who's – whom the Board has already told us that we want to talk to.

CHAIRMAN: Yes, yes. We really – we really need to notify the neighbours of Mr Coombs' coming as well. And I think they're scheduled for later in the week. So we should perhaps see if we can get them for tomorrow.

MR ROBINSON: Okay, thank you sir.

ADJOURNED [10.30 am]

RESUMED [10.45 am]

CHAIRPERSON: Yes well, what we would propose to do for today, the Board - or some members of the Board, have requested that Mr Bromley and Mr Daysh be available for questioning today. It won't take long so that we'll perhaps do that now because I don't think any other party proposes cross-examining either of those two witnesses now. Perhaps we can then move on to the witnesses that Mr Lang wishes to cross-examine (inaudible) and that should bring us to at least some time near lunch I suspect. And we thought we would do a site visit this afternoon because it's fine and the forecast is not good for the rest of the week and then tomorrow morning Mr Coombs and we're hoping to have the neighbours (inaudible) for Mr Coombs' evidence here tomorrow morning but it really depends on whether they are available. So we'll hear those Contact witnesses today and then finish Contact's case tomorrow morning. Then at the close of that we can then hear from the Regional Council and the Taupo District Council on their views about the varied conditions that have just been proposed and then perhaps followed by you Mr Robinson on your submissions relating to the matters that I've raised this morning. And then all parties can respond to them when they open.

MR ROBINSON: So to clarify, that means Professor O Sullivan is free and clear?

CHAIRPERSON: Yes I see him at the back of the Court, Professor you are free to go.

MR ROBINSON: Yes, I warned him in advance that his participation may be limited to waving goodbye as he exited stage right.

CHAIRPERSON: Well at least it's better than some people when they exit.

MR ROBINSON: Yes, and similarly Mr Malcolm Hunt. We will advise Mr Hunt accordingly and I think if I could ask one of my colleagues to send an SOS to Mr Bromley, he was down at - hopefully at Wairakei and we'll ask Mr Daysh to step forward.

[10.50 am]

MR ROBINSON CALLS

STEPHEN GRAEME DAYSH (Sworn)

Q. Mr Daysh, could you confirm for the record please that your full name is Stephen Graeme Daysh and you're a director and principal planner in the Napier office of Environmental Management Systems Limited?

A. Services.

Q. Services, yes, get that right.

A. Yes, thank you, yes.

Q. And you have prepared both a brief of evidence-in-chief and rebuttal evidence in this proceeding and could you confirm that the contents of both of those briefs are true to the best of your knowledge and belief?

A. Yes.

CHAIRPERSON: There's no party wishes to cross-examine Mr Daysh as I understand it? And I think the only Board member that wishes to cross-examine you is Mr Nugent - not cross-examine you I'm sorry, ask questions.

MR NUGENT

Q. It's really a clarification and it's - I'm asking (inaudible) conditions rather than (inaudible). On Mr Coombs' rebuttal landscape plan BC01 in the evidence in reply, it's probably easier if I hold it up, it shows mitigation planting in green, then it extends across the boundary out of the site that

Contact owns, into the adjoining site. Now, I understand that Contact have easements that allow them to do that, but what I'm more concerned about is whether a condition can be placed which effectively requires a third party to maintain that mitigation process, is that what's going to happen?

A. I think the first point I make is that mitigation plan was originally to be appended to the land use conditions but at the behest of the District Council they sought a different - slightly different - more management planning approach to the landscape conditions which referenced that plan as something to take account of when the landscape management plan is prepared and then approved. So it's - so that plan itself has come out of the conditions, but it's being put forward as evidence by Mr Coombs in terms of dealing with those issues so that's the first point, I appreciate it probably doesn't answer the question, that's just in context. The second point is that my understanding is that Contact owns the block of land, the Oruanui block itself, the other block is - south of that is, part of the Wairakei Tourist Park which Contact has rights of use for geothermal activities over and I think that if any planting, from a practical point of view, if any planting was undertaken which went over that boundary Contact manages that area, there's a pipe line which comes from Te Mihi through that area to the Poihipi Power Station now, so I don't think from a practical point of view there'd be any problems or issues with that planting if it was planted being maintained by Contact.

Q. How about in 50 years time? I mean as a land use consent (inaudible) and so as long as the station is there, which we presume will be 50 years, because Wairakei has been 50 years - I think you can understand where I'm --

A. Yes.

Q. -- heading, just in terms of the land use consent that is - if that is required, I mean it may be that Mr Coombs can say that that could stop at the

boundary and achieve the same outcome.

A. I'm just thinking about that in relation to the consent area as well which -

Q. I think it's outside the consent area.

A. Yeah. I might just double check that.

Q. The consent area seems to be (inaudible)?

A. Yes. I'm wondering whether you put the consent area plan, the land use consent area plan, it does - consent area does come into that other crop of land.

Q. Yes.

A. But perhaps in the area -

CHAIRPERSON: Can you just perhaps make it a bit darker so we can see that?

No I think it's probably that - I don't think it's that so much as the lights I think, you will have to put out the front lights: You can move up to the plan if you so wish Mr Daysh.

WITNESS: Yes, that would be helpful. What I'm referring to, before I do, is I'm looking at the comparison of the consent area plan for the land use consent and that's plan number 124922-RC 06 provision 7, that's attached to the land use conditions, and I'm looking at that - just comparing that with what's on the - Mr Coombs' latest mitigation plan. Yes, just thinking about Mr Nugent's question actually with reference to this plan, he's talking about a boundary - a land boundary that on this plan I've just referred to, if we follow the most southerly yellow line that comes down through here and it continues on through an area where the power station - proposed power station site is and then hooks up to that yellow boundary again. The boundary comes along here, the yellow boundary for the consent area does come into this area, in this area here, and what Mr Nugent has asked is that there's some planting proposed probably in this area through here in Mr Coombs' landscape mitigation plan and, as I

say, Contact does have pipelines crossing that boundary and manages - actively manages that steam field under its operations through to the Poihipi Power Station and that's an area that could well have other geothermal wells drilled over time as well and pipelines. So my answer stands that practically I don't see any problem but legally to do it as a consent condition, that's - again, my answer was that that plan is referenced as a guide to the landscape management plan and is to be approved and it's a - you might have to look at it under that final landscape of that management plan.

MR NUGENT

Q. I think I'll have to ask the District Council how they see that as well?

A. Yes.

Q. Give them a warning at this point. Thank you.

CHAIRPERSON: Have you any more questions?

MR NUGENT: No.

(Witness excused)

[11.00 am]

MR ROBINSON CALLS

CHRISTOPHER JOHN BROMLEY (Sworn)

Q. Mr Bromley can you confirm for the record please that your full name is Christopher John Bromley, you are a geothermal scientist employed by GNS Science at Wairakei?

A. I am, that's correct.

Q. And can you confirm also for the record that you've prepared both a brief of evidence-in-chief and a brief, rebuttal brief in this proceeding?

A. I did.

Q. And can you confirm for the record please that those briefs of evidence are true and accurate to the best of your knowledge and belief?

A. That's correct.

CHAIRPERSON: Good morning Mr Bromley, there's only one of the Board members wishes to ask you some questions and that's Professor Browne.

PROFESSOR BROWNE

Q. Good morning Mr Bromley, thank you for coming in at such short notice and also for your helpful evidence. There's a few points I'd like to get some clarification and your views on. One, I'd like to learn a little bit more about is heat flow in the Karapiti area, we've seen some - we know how it's changed, there's evidence of that, and the - and there's been a decline, what's it been doing in the last few years? Has there been an increase, a decrease or is it thermally stable?

A. I have been undertaking some research work with a colleague, he's also a colleague of yours, Professor Mandrake (ph) Hofstein (ph) and we have endeavoured to undertake measurements of the heat flow from Karapiti for the purpose of determining whether there are changes with time over

- the last ten years I suspect.
- Q. Yes?
- A. We started in about 2000, so eight years, and our observations are that there has not been any significant change in heat flow from Karapiti but I would qualify that by saying of course there are intermittent changes of amplitude and discharge from individual features, hydrothermal eruptions, for example, which create quite a dynamic - dynamic changes in heat flow from that Karapiti area. But our observations over the last ten years suggest that the - in the recent years, at least, there have not been any significant long term changes.
- Q. With hydrothermal eruptions how many have occurred that you know about in the last ten years, and have they been big or trivial?
- A. There have been some significant events that reached the size that attracted media attention. From recollection two or three of those in the last ten years, and some minor events which were sufficient to cause concern from the point of view of management of the park for safety of tourists walking around the track that were events that put - ejected pumice on to the trail - on to the tracks. From my recollection, events every two to three years of sufficient size to create some concern for management of the park, but not large enough to close the park completely.
- Q. The Strategic Management Plan mentions hydrothermal eruptions and it cites evidence from an old field that there are unlikely to be hydrothermal eruptions or at least it's not of great concern, do you - do you hear that view or have a different opinion?
- A. Sorry could you repeat, for the Karapiti area?
- Q. No, for the Wairakei area.
- A. The Wairakei area.
- Q. I mean there's been quite a few over the past few years that we know about, but in the Strategic Management Plan, I forget which page it is,

there's a mention that it's not - they're unlikely I think the word -

- A. Yes I think it's fair to say that they're relatively rare, Craters of the Moon is an exception in that as I said they seem to be occurring every few years of sufficient magnitude to cause some concern for management of access to the park. But the only other events that I can recall were an event in Elim (ph) Lakes which occurred in 2001 and there haven't been any major events in the Tauhara part of the Wairakei system in recent years. So, I would say it's fair to say that they are rare events and not frequent enough to be a major concern.
- Q. You do mention in your evidence, I think it's in rebuttal, that the prospect - well you mention the possibility of eruptions with increasing pressure and that pressure being transmitted, so that the perched waters can discharge at the surface and that could have a - could cause a hydrothermal eruption.
- A. Yes.
- Q. So that's a different genesis from the usual hydrothermal eruptions which result mainly from lowering pressure?
- A. It's a different genesis from those that have occurred previously in the Wairakei area because of course the Wairakei Tauhara area has - the changes have been mostly pressure reduction causing an increase in steam flow and that steam flow has boiled ground water and it's changed ground water or flashing of the ground water that's fed the hydrothermal eruptions. But we have seen evidence in other areas nearby where increasing pressure from injection has actually stimulated hydrothermal eruptions, not from Wairakei Tauhara, but from other geothermal fields and that mechanism is simply a case of boiling or near boiling fluids coming close to the surface and then boiling and erupting where some trigger such as an atmospheric pressure change or a vent change can stimulate those eruptions. So, I think it's fair to say that injection can create hydrothermal eruptions and that's been demonstrated.

- Q. Now, with regard to the Te Mihi site itself, I mean I think Mr Coombs' map showed fumarole to the north west quite close to the proposed site and another one to the east, what's the nature of the thermal activity in the Te Mihi site area and has it changed recently or in the terms that you know about it?
- A. There is a fumarole in the northern Te Mihi area, it's on the other side of Te Rau-o-te-Huia Stream from where the main power plant development is and it is surrounded by an area of thermal activity, steaming ground and thermal vegetation. And, from my observations, there haven't been significant changes in that area in the last ten years that I have been observing, no.
- Q. On the site area is there any, as far as you know, any old alteration that could indicate previous thermal activity and are there any hydrothermal - evidence of hydrothermal eruptions or, for example, hydrothermal eruption breaches in the actual site area and nearby?
- A. I just cannot answer that question with any authority because I haven't actually inspected the Te Mihi Power Station for that purpose, but there are other geologists associated with the power plant development who have done that, but I'm sorry I haven't actually undertaken any studies on that respect.
- Q. Thank you. Now I'd just like to get your views on the reinjection strategy, I mean, I have read the evidence and have seen in places it's not firm yet and that's okay, because it's something that the Peer Review Panel will address when the details are needed. But I just - if you could just maybe - in the bundle you talk about targeted versus remote injection and I'd just like to hear a little bit more about that please particularly with respect to the targeted which I take is being under the subsidence areas into the mid Huka where say in Crown Road, is that a steam zone or is that a water zone and I'm also bearing in mind Dr Watson's evidence. So if you could maybe give us a few moments on that I'd appreciate it please?

- A. Fine. To clarify that the - I regard targeted injection as fluid that is injected into a zone close to or within a zone that is compacting and it's with the purpose of - specific purpose of attempting to reduce subsidence rates or compaction of that zone and where that compaction is occurring close to or within a steam zone itself the worry that I identified was that the injected fluid can condense the steam immediately around the injection point and create a zone of lower pressure as a result of that condensation process. This could have a transient effect, if you like, of actually increasing the subsidence rate because of the reduced pressure, that's an uncertainty, if you like, associated with that process of - or that mechanism of attempting to reduce subsidence rates by targeted injection.

[11.10 am]

When I refer to remote injection, what I mean is that the injected fluid is going into an is aquifer which is connected by pressure to the subsiding zone, but - so there will be a pressure affect, but the fluid will not be cooled - the fluid that's going into the steam zone will be the local near boiling fluid, so it won't be significantly cooler so, there won't be the same degree of condensing going on, so it won't be such an adverse affect if you like on the steam zone pressures if injection is remote. And so I see a difference, if you like, between targeted injection and remote injection because of those different - you get a difference in the temperature and water going into the steam zone. Now was there anything further that you wanted me to clarify?

- Q. The targeted reinjection steam zone, that would be analogous to a condenser in a power station, wouldn't it?
- A. Yes.
- Q. And I take your point that if you do reinject it's not going to cause the formations to inflate, I mean it's one way?

- A. Yes.
- Q. A collapse won't be restored insofar as the full pressure from - how do you see - I mean it won't be -
- A. Well we have to be a little cautious because there was a discussion about this with Dr Allis and Karsten Pruess that I recall, I think it was 2006, about the effects of injecting into a steam zone and whether it will reduce the pressure or increase the pressure, they had differing views and in the end they agreed that both can happen and the reason for the difference is that if you have a very large steam zone and you condense a part of it, steam is very mobile and it can flow back in and restore pressure very quickly, so injection into a large steam zone in some fields overseas such as The Geysers and Larderello in Italy has not had any significant adverse effect on pressures because there's a large steam resource there and the flow of steam restores pressures very quickly. But where you have a limited volume of steam and a well bore is a good example and so is a condenser in power plant, a limited volume, you put cold water in there, it condenses the steam and the pressures drop very quickly and there's no resource or supply of steam to come in and replace it very quickly. So that's the difference between the two views, or points of view about the effect of injection on steam zones. And I think what we're dealing with is probably an intermediate between a large steam zone and a small steam pocket intermediate, so we might get a combination, we might get some immediate pressure drawdown around the injection point, but steam supply from the surrounding areas will restore that pressure and you'll probably get some kind of what we might call a buckling effect, equalising the pressures fairly quickly.
- Q. I think the draft consent or at least the consents are reinjection would be below the base of the Huka Falls formation?
- A. Yes that's my understanding, below the upper Huka Falls formation at least, yes, that's the wording of the consent if I recall correctly.

- Q. Thank you for that. Just one small point, the subsidence measurements were made by reference to the Aratiatia survey point, has that been surveyed in the last few years? What was the date of the last survey? I mean everything's referenced to that one spot?
- A. Yes.
- Q. Has that changed?
- A. No I believe that the entire network is surveyed every four weeks and that ties in any local "Reference". So in the case of Crown Road for example there is a local reference mark that's tied in to the Aratiatia every few years - every four years it's - but in terms of tying in the - do you mean in terms of tying in at day 93 that Aratiatia benchmark --
- Q. Yes.
- A. -- to the rest of the world or do you mean -
- Q. No, into New Zealand. I mean how -
- A. Into New Zealand.
- Q. The North Island is that moving itself?
- A. Yes of course there is tectonic movements and up until now the reference point has been just that, it has not been tied into anything else. The Aratiatia reference point is the base for all the Wairakei Tauhara subsidence surveys. It's considered stationary. We know it's not stationary, but I'm not aware of any global tie, if you like, or tie between that benchmark and Auckland or anywhere else since the last major survey through - down through where the main highway is, which might have been the 1970s if I remember correctly. But there is an intention to tie these in more carefully using GPS - continuous GPS measurements, but that will take some time.
- Q. So it's outside the Rotokawa and the Wairakei fields far enough not to cause concern that it's also dropping in response to -
- A. Yes, it's always been considered a relatively stable location outside of both the Rotokawa and Wairakei geothermal fields.

CHAIRPERSON: Thank you Professor and thank you Mr Bromley, thank you for
your assistance again.

(Witness excused)

ADJOURNED [11.15 am]

RESUMED [11.35 am]

MR ROBINSON CALLS

EDWARD JAMES KILTY (Affirmed)

Q. Mr Kilty can you sit down please. Can you confirm for the record that your full name's Edward James Kilty and that you are employed by Contact Energy Limited as a Project Director - Generation?

A. Yes.

Q. Can you confirm that you have prepared a brief of evidence-in-chief in this proceeding?

A. Yes.

Q. And can you confirm that to the best of your knowledge and belief the contents of that brief are true and correct?

A. Yes.

CROSS-EXAMINATION BY MR LANG

Q. Good morning Mr Kilty. At pages 8 and 9 of your evidence you discussed the litigation that there has been between Contact and McLachlan interests over a piece of farmland surrounding the Pohipi Power Station correct?

A. Mhmm.

Q. Now, I'd just like to put to you a plan and ask you if you can identify part of that plan. I just ask do you recognise the original outline there which is shown as being power station boundary - as being a boundary of the power station as finally determined by those court proceedings?

A. I think the title for that - for the actual power station land has not been issued and so that there may still be some movement in that boundary, as I understand it, but as you understand it, that orange outline boundary is the boundary that's been identified and is to be surveyed.

Q. Mhmm, as a result of those court proceedings?

- A. I'm not comfortable confirming that that is exactly the right boundary Mr Lang but it looks very similar to it so.
- Q. I'd just like to refer the witness please to one of the exhibits to Mr Pummer's evidence if there's a copy of that evidence available, it's Exhibit BP4. I understand it's going to appear before us before long on that screen.

CHAIRPERSON: I wonder, I can't write on the screen unfortunately but I can write on my own copies.

MR LANG: Sorry sir, I hadn't produced copies of it because I understand understood you'd have it before you.

CHAIRPERSON: Yes, I don't know what's happened to my boxes.

MR LANG: Well I can give you mine sir, because I won't need it after these next few questions.

CHAIRPERSON: Okay.

CROSS-EXAMINATION CONTINUED BY MR LANG

- Q. Mr Kilty, I'd just like you please to look at that plan, particularly the contents that relate to the Poihipi Road Power Station, could you just check that against the last plan that I showed to you just to see what I'd like to put to you is that the orange area marked as Poihipi Power Station boundary, that boundary appears to be drawn to take in those features, the power station and the steam field features that are shown on that exhibit of Mr Pummer's?
- A. Yes.
- Q. And assuming that Mr Pummer's exhibit is a correct record of the current

- features associated with that power station then that orange boundary contains all the current features, is that a fair conclusion?
- A. Yes, that appears to be - appears to be right.
- Q. I'd just like to it turn to paragraph 35 of your evidence, you mention there a process of Contact requesting the receivers to exercise some rights it has to exclude a portion of the leased land from the McLachlan lease, is that correct?
- A. Yes.
- Q. Now, how are you aware of that request being made?
- A. That request is made to facilitate a reinjection - a new reinjection well required for the power station.
- Q. And how are you aware of that? Of that request being made?
- A. Oh, through the activities in the office, through being part of the team.
- Q. You mentioned that request, but as I understand it, that's the only such request that you are aware of?
- A. Yes.
- Q. So no other proposal to exclude any additional area of land (inaudible)?
- A. No, not at this point.
- Q. And as far as you are aware, the McLachlan family still occupy the areas of farmland around the power station site?
- A. They do, yes, they farm the land under a lease from the companies in receivership.
- Q. And simply they live in dwellings in Tukairangi Road near to that -
- A. That's correct.

CHAIRPERSON: Does any other party wish to cross-examine this witness?

RE-EXAMINATION BY MR ROBINSON - nil.

(Witness excused)

[11.45 am]

MR ROBINSON CALLS

CRAIG ANTONY STEPHENSON (Affirmed)

- Q. Mr Stephenson can you confirm for the record that your full name is Craig Antony Stephenson and that you are employed by Contact Energy Limited as an environment and land manager geothermal?
- A. Yes.
- Q. Do you confirm for the record that you prepared a brief of evidence-in-chief in this proceeding?
- A. Yes.
- Q. And that the contents of that brief of evidence are true to the best of your knowledge and belief?
- A. Yes.
- Q. Just before I hand you over to Mr Lang a question arising out of Mr Nugent's questions of Mr Daysh, could you please advise the Board of Inquiry as to the nature of the land access arrangements Contact has in relation to the Wairakei Tourist Park?
- A. Yeah certainly, on the block of land that was in question with the area of planting crossing the property boundary there, falls into an area of the Wairakei Tourist Park, which is Crown land that we hold a special purpose lease over. We have got abilities to construct - or declare any area of that block of land as exclusion - exclusive possession zone. One of the requirements of us taking exclusive possession is that once we finish operations in 50, 60 years, whenever, we're required to remove all infrastructure, I'd imagine that the planting would be considered part of your infrastructure if it's been put in place for landscape mitigation, so it'd be required to be removed if we cease operations.

CROSS-EXAMINATION BY MR LANG

- Q. Morning Mr Stephenson, could I please ask you to turn to the first of the exhibits to your evidence, it's index C, Appendix 1?
- A. Yeah.
- Q. Local submitter's plan?
- A. Yes.
- Q. On the copy I have there is no indication of where the Poihipi Road Power Station is located, nor any indication of the location of any submittance for indeed any party that might be considered affected by Poihipi Road Power Station, is there a separate plan that shows that power station and submitters in relation to it?
- A. Not attached to my evidence, no.
- Q. I see a note there that the leasehold interest of Mr and Mrs McLachlan is not shown, why is that? The location of their property not shown?
- A. The purpose of this plan was to show the location of the local submitters and we made a distinction that the submission to Mr McLachlan and MacPower was not considered a local submission.
- Q. We've heard evidence from Mr Kilty that in fact McLachlan's occupy land immediately adjacent to Poihipi Road Power Station and there is a consent application for air discharge from Poihipi Road Power Station, did you not consider they are local residents?
- A. The nature of the submission that Mr McLachlan filed was raising concerns more about the operation or the future operation of the MacPower operation, it wasn't raising the same issues as the people who have been identified in this plan were raising about issues like traffic and the safety of their children, landscape effects, noise effects. So we made a judgment call that we classified Mr McLachlan as distinct from what we call local submitters.
- Q. (Inaudible) raised issues of effects of the power station discharges on air quality?
- A. From my recollection it was mainly in regard to affecting the potential

operation of the Geotherm operation.

Q. Did you not see any reason to consult with the McLachlan's?

A. We did consult with Mr McLachlan, we sent him a letter in I believe it was July 07 with information about the Te Mihi project and an invitation to contact us if he had any further questions.

Q. Was that the full extent of the consultation?

A. Yep, at that point.

Q. He got a letter, just that one letter?

A. The one letter, yes.

Q. And say at that point what was the other consultation you implied?

A. Subsequent to that I know he's been in contact with our Chief Executive Officer having discussions, I haven't been privy to those discussions but I know they have occurred and obviously up until last week we were in discussions with Mr McLachlan.

Q. After that one letter did you approach Mr McLachlan or other members of the McLachlan family by way of consultation?

A. No.

Q. And what approaches did you take to other submitters by way of consultation?

A. The submitters in what we called the tier 1 areas, which were the areas closest to the Te Mihi development we made follow up phone calls to them and arranged meetings with as many of the locals as possible and we've continued those discussions on to the current day we've had various meetings with the local submitters in that area. The tier 2 local residents which were further a field from the development, in which Mr McLachlan was included in that group, we just simply sent them information with an invitation to approach us if they had any further questions - if - if he had expressed an interest we would have obviously scheduled a time to meet with him. You will see that Mr - I have shown them a graph on that plan CAF1, they are outside what we call the tier 1 area, but they did make a request that we come and visit them and we had that one meeting with

them.

Q. Now, I see from section 17 of the AEE that you classified tier 1 parties as those that are likely to be affected by the development, for example, because of their physical proximity to the project location, isn't it true that the McLachlan's are the most close - or the closest occupiers of land to the Poihipi Road Power Station?

A. To the Poihipi Road Station, yes, correct.

Q. Wouldn't they be tier 1 parties to be closely communicated with?

A. I suppose - yeah they weren't identified as tier 1 parties when we were doing our consultation plan and that may have been an oversight on our behalf.

Q. In your consultation section of the AEE it's stated that in consultation with tier 1 parties Contact Energy attempts to engage on a proactive one-on-one basis or form working groups or conduct special studies, were any of those things done with the nearest neighbours, the McLachlan's.

A. No because they weren't at that time identified as tier 1.

Q. Were they at any time identified as tier 1?

A. No.

Q. Though they occupy the land closest to the Poihipi Road Power Station?

A. No they weren't identified as tier 1, so we didn't treat them as tier 1 through the consultation process.

Q. And are you aware when the decision was made to include the Poihipi Road Power Station discharge consent in this process?

A. That was before July - before we lost the application.

Q. So Poihipi Road was fully a part of the process at that stage when you were identifying tier 1 parties for personal one-on-one consultation?

A. Um, I'm trying to recall the timing back a year and a half ago now, it was probably happening at the same time.

CHAIRPERSON: Any other party wish to ask questions?

RE-EXAMINATION BY MR ROBINSON - nil.

MR NUGENT

Q. I'd just like clarification on your earlier statement, do I understand from that that on the Wairakei Tourist Park you effectively had the rights as if you were owners, so long as it is to do with the Geothermal power station, is that the gist of the easement?

A. Yeah.

Q. So if you put landscaping there the Crown can't alter it so long as it's for your purpose?

A. Yep.

Q. Thank you.

PROFESSOR BROWNE

Q. An item in your paragraph 23 you mentioned that Contact would take a water sample from the Birdsall/Koster bore and have it chemically analysed, which elements would be analysed this - and what would it be seeking to find?

A. We've actually completed that sample, we did a full scan of it for - against the drinking water standard, as well as looking for what we call the geothermal contaminants and we supplied that information to the Kosters - to the Koster/Birdsalls.

Q. And that is - the sampling analyses will be repeated at appropriate times?

A. Ah yeah.

(Witness excused)

[11.50 am]

MR ROBINSON CALLS

DR CRAIG DOUGLAS STEVENSON (Affirmed)

Q. Dr Stevenson can you confirm for the record please that your full name is Craig Douglas Stevenson and that you're a director of specialist environmental consultancy?

A. Yes.

Q. And can you confirm that you prepared a brief of evidence-in-chief and rebuttal evidence in this proceeding?

A. Yes, I did.

Q. And can you confirm for the record that to the best of your knowledge and belief the content of both briefs of evidence are true and correct?

A. Yes, I do confirm that.

CROSS-EXAMINATION BY MR LANG

Q. Dr Stevenson can you turn please to paragraph 92 of your evidence-in-chief. In that paragraph you make the statement that there's a "likelihood that, long-term most of the dry steam wells at Poihipi will be replaced with steam from Te Mihi, which is likely to result in a significant increase in rates of hydrogen sulphide emission". Now what's the source of that information that you've given?

A. That's from Contact Energy.

Q. And when you say in the long term, do you have any idea when that change in the steam source is likely to occur?

A. No I'm afraid I don't have that information.

Q. Are you aware of any recent use of steam from Te Mihi as a source of energy for the -

A. Sorry?

Q. Are you aware of any recent use of steam from Te Mihi as a source of

energy for the Poihipi Road Power Station?

A. No I'm not aware of that.

Q. Turning then to paragraph 99 you refer to the source of emission rates for the Poihipi Power Station?

A. Yes.

Q. And you have taken – the source you quoted in here is the 2006 Air Discharge Monitoring Report, Environment Waikato. So that then would be the report based on the use of the Poihipi steam as energy for that power station, is that correct?

A. At that time, yes.

Q. And the work that you have done, the modeling work you have done, has been based on the composition of the Poihipi steam has been used as the energy source at Poihipi so far?

A. That is the modeling that was done in the AEE.

Q. Right.

A. When it became apparent from further discussions with Contact, that in terms of setting an emission limit, it was necessary to take into account potential variability in steam supply, and changes such as the one that we referred to in relation to paragraph 92, that it was appropriate to seek a higher level for the emission limits and we did further dispersion modeling for those higher emission rates and that is presented in my evidence. I can quote paragraphs if necessary.

Q. That will – we will come to that, but the initially modeling you did was based on the 2006 –

A. That's correct.

Q. -- Poihipi steam --

A. Yes.

Q. -- data?

A. Yes.

- Q. Now the capacity, the throughput, or the emission rates that you have adopted in your modeling for Poihipi Road Power Station, where did you derive those from?
- A. Sorry?
- Q. The flow rates, the emission rates.
- A. Of hydrogen sulphide or the discharges in total from –
- Q. From the total discharges from Poihipi Road?
- A. From the – from the cooling towers? That was information that I obtained from Contact Energy. The important parameters apart from the emission rate of the hydrogen sulphide itself is the airflow and the operating characteristics of the cooling tower and I particularly was in close communication with Contact Energy to obtain that design information so that we were able to work up a model for how those emissions from the cooling tower would vary with the climatic conditions.
- Q. And is it correct that you have based your modeling on the theoretical maximum throughput from that power station, the maximum emission rates?
- A. On the design throughput, that is correct.
- Q. And then if you turn to paragraph 168. You refer to your exhibit CS14, which shows the recalculated emission rates based on a different steam characteristic, is that correct, is that a fair summary?
- A. Essentially a different hydrogen sulphide emission rate. There's no underlying difference assumed in the steam characteristics there. The – basically it's a matter of the emissions of air, water vapour, heat from the cooling tower are the same as they would be in the earlier model.
- Q. And the process for carrying out that further modeling work or that further calculation, can you just explain that, because you say here, "The emission rates have been increased by the ratio of the emission limit proposal Poihipi Road Power Station". Now does that indicate it's a recalculation rather than an actual remodeling?

- A. It is a recalculation, but my knowledge of how the dispersion modeling works, given that the cooling tower is taken to be operating in the same mode, in other words, the same heat discharge, the same air flow, the same moisture contents etc, then it is a fact that if you change the emission rate of hydrogen sulphide, the predicted concentrations are simply proportional to the emission rate.
- Q. And you've done that at least partly to take account of the different hydrogen sulphide content of the Te Mihi steam that is to be used in the future?
- A. As advised by Contact Energy, yes.
- Q. Is that really the sole reason for doing that recalculation, the different steam source in future?
- A. Yes, it's from advice from Contact that there may be, in the future, a requirement to discharge a higher rate of hydrogen sulphide.
- Q. Now in paragraph 169 you refer to exhibit CS14. I'll just ask you to turn to that exhibit please.
- A. I'm sorry, I didn't quite catch –
- Q. Exhibit CS14, if you turn to that please?
- A. Yes.
- Q. Now you referred to the bright green line, or the bright green contour --
- A. Yes.
- Q. -- as being the predicted – what is the number there, 70?
- A. Yes.
- Q. Now inside that there are three higher concentration predictions shown in – on my copy anyway, purple, is that right?
- A. There are, three –
- Q. And what concentration do those lines represent?
- A. They would be a hundred micrograms per cubic metre.
- Q. Right. And how close to the green 70 line would that southern most purple 100 concentration line be?

- A. The – that is on the ridge to the south of the station. The – I’m not exactly sure of what you are seeking in the question. The distance between the green contour line to the south and the southern portion of the southern most red or purple line is obviously very small. Judging from the scale there, I would say it was in the order of 50 to 100 metres.
- Q. And how far would that purple 100 contour be do you think from Tukairangi Road?
- A. That would be 300 metres. It’s important to note there that that 100 micrograms per cubic metre contour is actually on the top of a little ridge and the land falls away fairly definitely from that point down to Tukairangi Road and that’s an important reason why the concentrations predicted further south fall off quickly.
- Q. And the other 100 contours lie between would you say 100 and 200 metres or between 50 and 200 metres of the predicted 70 contour line?
- A. Of the order.
- Q. Now have you used any monitoring data from monitoring hydrogen sulphide levels close to the Poihipi Road Power Station when you were doing your assessment work?
- A. I do present information that is from earlier Niwa reports. They report monitoring in the vicinity of Poihipi Power Station and I’m afraid I don’t know the exact location of the monitoring, which is presented in exhibit CS3, and the information that was available from the reports that I had access to was somewhat sketchy really, enabling me only to see the maximum concentrations and the average over the year, or over the period of monitoring and it was notable that the pre-station monitoring in 1995 was indicating much higher levels than post-station. I can’t place any particular interpretation on that.
- Q. Did you have access to anything in the last few years –
- A. No, that is the only information I have had access to.

- Q. Well given the change in steam source and its composition, and the close location of a place of work, a farming property near to the power station, wouldn't there be some helpful information produced for Contact and for the Regional Council if there was to be some future monitoring of the Poihipi Road Power – of hydrogen sulphide levels at or near to the boundary of Poihipi Road Power Station?

[12.00pm]

- A. We have given some preliminary consideration to appropriate monitoring sites. After the – after the establishment of Te Mihi and the – I, in my evidence, indicated the desirability of keeping that plan reasonably flexible to be able to take account of particular issues and concerns. It may be that if there is a particular concern about hydrogen sulphide levels in the vicinity of Poihipi, that that may be one appropriate monitoring location. I would just note, however, that one of the – one of the important points in my mind in terms of the overall cumulative modeling that's been done as part of this assessment, is that outside quite a small area, and basically it's that 70 to 100 contour on CS14, I think, the modeling suggests that the dominant contributor to 99.9 percentile hydrogen sulphide levels in this area is actually going to be emissions from the Rotokawa Two Power Station, so it's a matter of balancing to find out where is the hydrogen sulphide coming from and I think the appropriate location of monitoring needs to take that into account.
- Q. Now in this case if you'll take it from me that the 70 and 100 contour lines fall within land that's a place of work for people other than Contact, and they maybe exposed to those levels as part of a work or recreational or lifestyle activity, would it not provide some helpful information to get some monitoring done either periodically or on a short term basis to verify that

the modeling predictions either are correct or need to be adjusted or find out exactly what is happening near to that power station?

- A. That may be appropriate to do, however, taking into account that the 70 micrograms per cubic metre guideline is one that is chosen to address odour issues. The principal concern is whether the McLachlan's or other people working on that land are experiencing or have experienced or do experience in the future hydrogen sulphide levels that they find objectionable, so to some extent, there is built in monitoring to the extent that people may be on that land. Now it could be helpful to know what the hydrogen sulphide level is, but for a somewhat secondary – from a somewhat secondary perspective, in that it may provide some useful information in terms of what levels do the people work there – working there find objectionable, but the key issue is whether or not people find the odour objectionable.
- Q. Now with odour, I'm sure some members of the Board and yourself perhaps have experienced difficulty in the assessment of amenity impacts of odour because of a difficulty in incremental measurement.
- A. Correct.
- Q. And here some monitoring would assist in determining whether any amenity complaints, any amenity issues, are realistic, particularly where there are parties that have a history of difficulty between them?
- A. Yes.
- Q. That may provide some objective measure?
- A. Yes. I'd agree with that.

RE-EXAMINATION BY MR ROBINSON – nil.

(Witness excused)

MR ROBINSON: That seems to be the morning's business sir. The only witnesses I have left are Mr Chrisp and Mr Coombs, subject – I don't know how the hearing manager's got on organising local people, but Mr Coombs is on standby to be here at half past 9 tomorrow morning.

CHAIRMAN: Yes, well we've got the local people – we've got them here tomorrow morning, so we can start at 9.30. We are going on a site visit this afternoon so that we can – we are meeting at one of the properties at half past 2, so that will keep us occupied this afternoon. Now tomorrow morning, is Mr Chrisp going to adduce his additional evidence?

MR ROBINSON: Yes, that would be the plan sir and – but we're in your hands as to the order in which you want to handle that process, but I would imagine that the – it would be appropriate for Mr Chrisp to speak first to the point that Your Honour raised this morning and indeed to answer any additional questions the Board may have on that or any other issue relating to policy and planning.

CHAIRMAN: I'm just thinking about the landscape – the landscaping, the neighbours may not be that interested in –

MR ROBINSON: Well I wonder sir, I could certainly –

CHAIRMAN: We don't want to keep them here unnecessarily because they are apparently all working.

MR ROBINSON: Well I wonder if the better plan is that if the local neighbours are ready to roll, that the Board invite them to address it immediately following Mr Coombs' evidence and hold over the policy and planning issue which, as you say, is of absolutely no interest to them. Certainly

from Contact's point of view we are happy to accommodate the local residents in that way.

CHAIRMAN: Thank you for that. Well we'll do that then. We'll start with Mr Coombs and then we'll call on the local people to give their presentation. Some of them may wish to ask questions of Mr Coombs so I will give them that opportunity and then we will come back and have Mr Crisp and that will be the final witness then won't it?

MR ROBINSON: Yes it will sir.

CHAIRMAN: Yes. Now I understand Mr Hickman that you don't wish to start your case until Wednesday morning?

MR HICKMAN: Yes sir, that's correct.

CHAIRMAN: You'll open on Wednesday morning.

MR HICKMAN: Thank you sir.

CHAIRMAN: And the Regional Council will follow?

MR BROCKELSBY: The indication that we've had sir from MfE is that they'd like us to go tomorrow afternoon, but obviously in your hands on that.

CHAIRMAN: Well if you're free to go then, if you will be ready to go then, well that will be good.

MR BROCKELSBY: Yes. Arnold Watson is heading down tonight and so we will be here tomorrow.

CHAIRMAN: Thank you. Then Mr Lang.

MR LANG: Yes sir I'm ready for tomorrow afternoon if that suits the Board.

CHAIRMAN: Well okay, well hopefully we can get most of the evidence through tomorrow, except for the Taupo District Council, which will be Wednesday morning. Thank you for that. We will adjourn until 9.30 tomorrow morning.

ADJOURNED [12.15 pm]