that's where the dense media separation plant will be located where the kimberlite will be put into the plant and the diamonds recovered.

Located immediately next to the processing plant will be the accommodations where the employees will be staying. And north of the accommodations slightly will be the fuel tank farms location.

The small blue sliver that you see at the bottom of the picture is part of the processed kimberlite containment area. That will be the area where the fine processed kimberlite will be sent after it leaves the processing plant.

To the right of the picture is a road that goes off through a small lake that we call Lynne Lake, travelling over to Contwoyto Lake, which links us up to the annual winter road that runs north of Yellowknife each year.

Tahera Diamond Corporation has been working with the other members of the joint venture winter road committee, and we will be part of that joint venture.

CHAIRMAN: Thank you. Just to interrupt here, I wonder if the Board members can see clearly. There is three people there, because the Board members haven't seen this. Thank you so have much. I didn't want to be rude, but the Board members have to see this information. Thank you.

GREG MISSAL: Greg Missal, would you like me to back up at all? Okay. I will just maybe touch back on the winter road.

The winter road access runs from the Jericho site eastward and slightly south to Contwoyto Lake, which will be our link to the winter road which is built annually up from Yellowknife.

The company has utilized this winter road in the past to gain access to this site, so we are very familiar with what it takes to bring the winter road into Jericho.

Besides the winter road is the explosives -- basically the explosives storage location, and slightly into Carat Lake you can see just a small line there, that's the water intake, or as we will be speaking about, calling it the causeway where the water will be drawn from Carat Lake, up to the process plant and the accommodations facilities, as well.

And also just south of the causeway, you will see a slight curved stream, that's what we refer to as the Stream C1 diversion, that's a small stream that currently runs through the outline of where the open pit will be located. We are proposing to divert Stream C1 around what will be the ultimate open pit and join back into its natural flow location into Carat Lake.

In terms of our water requirements, for fresh water requirements, the majority of the makeup of that is for the processing plant. We will also have a need for potable water or for use of the camp. And of course there is going to be small miscellaneous uses as well, such as some water to be used for any of that ice road construction going over to Contwoyto Lake, any fire protection, or such things as hydrostatic testing. And, of course, as I mentioned, our main water source for that is Carat Lake.

This is a slight schematic of the Jericho kimberlite as it is located in the ground, and you can see the lines that go around it, that basically represents the outline of the open pit that we will be digging or developing in order to mine or extract this kimberlite material. That's the approximate location of that kimberlite, it is -- as you can see from here, it is a land-based kimberlite which is slightly unique to most kimberlites. Quite often kimberlites are found under lakes or partially under lakes. In this case, we are very fortunate that the kimberlite is a land-based kimberlite.

This is a bit of a difficult slide to read, but the intent of it was to show that the company has been doing many, many years of baseline study collection, and we feel we have covered all the points that are required to give us a very good knowledge of the circumstances that exist at Jericho in terms of requiring this baseline data.

You can see it began as far as back as 1995 and has carried up into 2004 with some predevelopment monitoring work and some geotechnical work this past summer.

I have introduced the team a little earlier. As I mentioned very briefly, this team has been together for quite some time working on this project. And for some of them it has been many years, in fact, and I believe that this group of people are experts related to this project. They have spent the most time and have the most knowledge of the circumstances that affect this project and would have gone into the work that we have prepared to show you today and the work that went into our submission to you.

So with that, I will start with Cam Scott to my right who is going to speak to you about the geotechnical work that he has been working on.

CAM SCOTT: Mr. Chair, this presentation that I'm going to give right now basically talks about the mine waste management for the project. It is a lot of the other discussions will follow related to water, will follow logically from this presentation which will set up the mine waste management side of things.

The first slide basically just gives an overview of the content of what I will go through, starting off with just an overview of the mine waste materials, followed up with a discussion of the waste rock piles and kimberlite stockpiles, specifically the layout, some of the improvements that we have made since the submission of the FEIS some years ago. Foundation conditions, design and some of the very brief comments on the dam construction.

The next portion will just touch on the processed kimberlite containment area, and again layout and filling, foundation conditions, design and very brief comments on construction.

The second-last component will deal with monitoring as it relates to these elements, and we will finish up with just some comments on the closure plan.

This first slide illustrates the main

components or the main materials associated with the mine waste from the project. The first part, the overburden soils, the soils overlying the ore body comprise mainly of boulders, sands and gravels with some silt. And there is the tonnage that goes with it. The second component, the waste rock, which is primarily granitic waste rock associated with the extraction of the kimberlite.

The next component, low-grade ore, which is basically kimberlite, it is low grade insofar as what we know presently. It may well get -- the plan of Tahera is to, in fact, process that material based on the assessment of some of the initial production and running that through the plant.

The actual production component is the coarse PK and the fine PK, which is processed kimberlite. Two fractions, the coarse fraction is basically like a gravel and comes out of the plant in that form and is handled by mechanical equipment. The fine PK is a very, very fine silty slimy material, and it is produced as a pipeline product from the plant and is piped to its containment area.

Just to give people an appreciation of the scale of the project, you can see the Jericho numbers, and we have added the Ekati production from one year, 2002. So if we look at our waste, our overburden and waste rock, we have got basically 15 million tonnes based over life of mine for Jericho, and for one year at Ekati, it is round numbers, approximately 45 million tonnes. So essentially we have got a three-time factor based on one year production at Ekati compared to the life of mine for the Jericho project.

If you look at the low-grade ore and the coarse PK and the fine PK, it is sitting at around 4 million, and it is a similar number of actual production of the processed kimberlite at Ekati. So you can see the magnitude of the scales of the project.

This slide illustrates the production in years, starting with year one, extending through to year nine of these various waste materials. The overburdened soils coming out basically in years one and two, very early in the start of the project. Mine waste or waste rock produced through the first four years through the open pit, there will be some incremental production of waste rock as part of the underground operation, but it is very small by comparison to the production that you see here.

Low-grade ore, first four years, and of

course the processed kimberlite associated with the project, starting perhaps just slightly in the first year, extending primarily for the next eight years and going through the life of the project.

This slide basically just gives a little more detail to what Greg touched on earlier. We have the waste rock pile 1, overburden waste rock pile 2, which is primarily where the overburden goes. Down here, of course, processed kimberlite, and here the low-grade ore stockpile.

Just so people appreciate some of the modifications or improvements that have been made based on input from reviewers over the course of the NIRB process and other inputs along the way, the first thing I would point out is the green line that runs along here, and that green line basically separates the two watersheds, water which flows to the north towards Carat, and water which flows south towards Key Lake and on into Contwoyto. Basically what we have done is we have moved all of those waste elements onto the watershed leading into Carat and kept out of this watershed to the south.

In addition, some of you may recall there was an overburden pile here as well as a waste-rock pile here. We have moved the overburden pile that was at this location to here, switched it with the waste rock so it is back here and then merged those two piles and moved it slightly up the hill. The advantage to that is now we have the capacity to move drainage from this pile more easily into the open pit during operations and at closure.

Moving on to the foundation conditions associated with these structures, basically they consist of bedrock, or in some cases bedrock with a thin soil cover, but predominantly bedrock is the foundation.

All of these sites are underlain by cold permafrost. And when I say cold permafrost, temperatures significantly colder by way of example than you would have in Yellowknife, where you would have what I call warm permafrost.

This section illustrates fairly typically what the slopes will be on each of the various facilities. The black line that you see there is representing the benches at which the material will be placed as part of the final slopes for each of the facilities. The steep segment on each of those, the materials placed at the angle of repose. The fine black line that goes from crest to toe illustrates the overall slope, which is approximately 21 degrees. And the red line that you see there, at closure we will just take the caps off, the sharp edges off, and grade that down to approximately an average slope of 19 degrees.

Insofar as the design and construction, for most of these facilities, most of these piles and stockpiles, we will attempt to put the first lift of material in winter to try and preserve the permafrost in the ground.

Where the stockpile comprises kimberlite, such as the low-grade ore and the coarse processed kimberlite pile, where there is organic soil, prior to placement of the kimberlite, there will be a thin deposit or layer of granitic waste rock placed over that, and that is basically for geochemical reasons to provide separation between the kimberlite and the organic soils. Kelly Sexsmith, I think, will be touching a little bit on that later.

These lift thicknesses, each of those is approximately 10 metres, and as I mentioned, the overall slope is about 21 degrees.

Moving on to the processed kimberlite containment area, this is a shot of the facility near the end of the mine life. I would draw your attention to this structure here, this is the west dam, this is what we referred to it. There is a structure at this location called the north dam, it is a contingency item at the moment.

The divider dike which separates the pond, the PKCA pond from the fine processed kimberlite, and then we have a dam at the east side and a dam at the southeast side.

Actually, could we just go back one? Just to carry on with the concept of just touching on the improvements that has been made, as a result of input from intervenors and others over the past few years, I want to point out that the divider dike is in fact back in, and that is different from where we were during the NIRB hearings, and it reflects primarily the difference in the deposition process. The fine processed kimberlite will be discharged by a pipeline from this end, and the intention is to put this divider dike and provide separation between the processed kimberlite and the pond.

So this pond here acts as a settling pond, and as a consequence of that, some of you may recall that there was a sediment settling pond at this location west of the west dam, and that is essentially a contingency element now and not part of this current base plan.

Just very quickly an overview on the processed kimberlite containment area. All of the dams have been designed in accordance with the Canadian Dam Association's guidelines. To give you the sense of scale, the dams are approximately 9 to 12 metres high. And as mentioned earlier, we have storage of the processed kimberlite to the east side of the divider dike. There is sufficient capacity to store the tailings in that area or to store the processed kimberlite in that area, even with a significant degree of ice entrainment which will likely occur as a result of the climate and operations during winter.

This facility also has a capacity for suitable water management and flood capacity handling. And the earthquake design criteria on which the dams are based is the 1 in 2475-year earthquake. Essentially for the 2005 year, that's the design earthquake that the National Building Code of Canada is recommending.

So this slide just shows how the development of the kimberlite -- the filling of the facility with occur. Starting in the year 2006, again discharging from these dams at the east end of the facility. Into 2007, the deposit is getting larger. Through to 2008, and we are starting to get pushed down towards the divider dike. And by the end of -- as time goes on, the elevation of the processed kimberlite rises, but the footprint stays more or less the same, some advancement over to the south.

The foundation conditions at the processed kimberlite containment area consist on the abutments or the sides of the valley of bedrock, or in some cases with a soil deposit overlying bedrock. In the valley floor, under the lake and along the alignment of the lake, there are glacial deposits, boulders, cobbles in a glacial till matrix of silt, sand and gravel. And all of the dam sites are underlain by several hundred metres of cold permafrost.

By way of example, there is something in the order of 540 metres of permafrost at Lupin, and approximately 400 metres at Ekati, and we would be in the same sort of situation here at Jericho.

This is the west dam showing a spillway on the one abutment. This structure is the most important in terms of containment of water from the entire operation. I will just point your attention here to this section line on this next slide. There is a cross section through that dam. We point out, this is where the water would be accumulating on this side.

The water at this level we anticipate to be the normal operating level, so fairly low in terms of elevation, 515, 517. The spillway would be situated up at a 523, which is what you see here. And it may rise slightly to the extent that water were to flow through that, but we envisioned that would be a very extreme and likely case. The base case, as I mentioned, has our water lever down at a fairly low operation level.

The structure itself, this is the dam in this area, consists of a frozen core, which is soil which has been placed in the middle of winter under very cold temperatures and compacted with an appropriate care and attention and quality control.

Thermosiphons, which are tubes linked to the surface that provide effectively refrigeration and it provides a cooling in this area, and provides a good bond between the frozen core and the underlying permafrost.

The brown line that you see there is especially what is called a geocomposite clay liner. It is essentially almost two pieces of carpet with clay in between, and it is a secondary containment element to the whole design of this feature.

One thing I just want to point out, the elevation, this is our seepage containment, the elevation to the top of it is 524, so it is, in fact, one metre above the level of the inlet to the spillway.

The rest of the structure is composed of waste rock from the operation, either crushed or run-of-mine waste rock.

Now you recall the divider dike that we talked about which defines and separates the pond and the processed kimberlite. So here we have the processed kimberlite in this area, and then the pond over on this side.

This structure is important for a variety of reasons. Its primary objective during operations is to prevent the movement of fine processed kimberlite through this structure and into this pond. On the other hand, it is important that it pass water, so essentially it is quite coarse.

And what we have up here is a series of filters or transmission materials, effectively a filter to prevent the movement of fines. So it will be built in stages starting as early as this summer at elevation 517. And then as time goes on, we will place, you know, before the processed kimberlite gets to this location, the installation of this filter zone. And as time goes on, as the processed kimberlite rises, the structure gets raised higher as well.

We will talk a little bit about closure later, but this structure ultimately becomes a containment element at closure for all the processed kimberlite upstream of it.

This is the typical section through the dams. The fundamental difference between these structures, the dams at the east side of the facility are that there is a beach or a zone of processed kimberlite against the structure, so that's distinctly different than what the situation we have at the west dam where we have water ponded against it. As a consequence, what we have here is a frozen core dam which provides containment in the first year of operation for water to the extent that we had elevated water levels.

In general, the pond will be situated well to the west of this structure. And so we don't need the same level of engineering containment or seepage control at this structure that we have at the west dam.

So as I mentioned, you have got a frozen core here, and, again, a waste rock structure through the rest of the dam. And to the extent that we need incremental storage, we simply have to raise the structure to get in and allow the tailings to discharge from the crest of the dam until the processed kimberlite builds up against it.

The construction of these dams is quite conventional in the north, they are frozen-core dams. The technologies and procedures are quite well established. In this case, it will be done by an experienced contractor using winter construction. And as I mentioned, the waste rock and esker sands and materials available onsite, and Don Hayley will be talking a little bit following my presentation, will cover off more details on just the general experience in the north with these types of structures.

Okay, moving on to the monitoring systems. I draw your attention. This is obviously a site plan, I draw your attention to this part of the drawing, purple, pit monitoring, green, thermistors, which effectively measure temperature and survey hubs for measuring displacements.

This is the open pit, and I'm just showing one indication of monitoring at the open pit. Primarily geared to pit slope monitoring and performance during the course of operations.

The thermistors, again, these green dots, there is a number of them sitting on the waste rock piles. In addition, and over here the coarse processed kimberlite, as well as on the various dams. Survey hubs link primarily to the performance of the dams. Okay, so that's the general overview of the geotechnical monitoring.

Specific to the dams, we have the three, west, east and southeast, a series of survey hubs on each of them, as well as thermistors. And I just draw your attention that the west dam, again the most critical in terms of water containment, the thermistors are both two sets of vertical and horizontal strings, and at the east and southeast, just a series of vertical strings of thermistors, I will show you what those all look like now.

So this is a typical dam, there is the survey hubs there, one on the upstream crest and one on the downstream crest. This green line indicates the vertical thermistor, so we can measure within the frozen core. And over here, the horizontal thermistor string which goes down through, along the base of the frozen core, and then down into the foundation soil materials so we can confirm the temperature there.

Last part of the presentation, the closure concepts, and I just want to mention that the development of the closure concepts is still unfolding, and a lot of the details will depend on things like vegetation trials during the course of the early operation. But as they stand presently, this list of bullets refers to what would be the case.

The slide slopes as we mentioned earlier, regraded to about three to one. At the coarse PK stockpile, the concept would be to prevent erosion, so the placement of waste rock and overburden for that objective.

Drainage from these piles will be directed to the open pit. Scarification, which basically means during the course of operations, the surfaces will become flat and fairly smooth and fairly impenetrable to water and not well suited to the potential development of vegetation, so ripping those up, creating a very rough irregular surface.

Pending the revegetation trials to determine the feasibilities and concepts for revegetation which will govern where one goes on terms of some of the closure aspects for revegetation, and then lastly, the placement of boulders on dump surfaces as has been pointed out from other individuals that that's a positive thing for certain birds, as well as the establishment of ramps on the piles and stockpiles to facilitate access by caribou.

And, lastly, the closure concepts for the processed kimberlite containment area, as mentioned there would be a slope on the processed kimberlite heading down to the divider dike. So at closure, the concept would be to dewater the pond by pumping or siphoning the water out of the pond, and then to breach the west dam, or depending on the situation, lowering the spillway, but the main concept, breach the west dam. In other words, take the dam, a segment of the dam out, so it no longer contains water. Cover the fine PK with the layer of .3 to .5 metre thick of coarse processed kimberlite, and then, again, getting back to the issues of revegetation, probably covering the coarse processed kimberlite by a cover of overburden or waste rock. All of that -- a lot of those details will depend on revegetation trials.

So that's the presentation on the mine waste.

GREG MISSAL: Thanks very much, Cam. I would just ask Don Hayley to come up now and give his portion of the presentation.

CHAIRMAN: Mr. Missal, before we proceed, could we take a 15-minute break, please.

Elders, I encourage you to speak up when you have any questions.

We will be back in 15.

(BRIEF ADJOURNMENT)

CHAIRMAN: Welcome back.
Mr. Missal, before you proceed, there is an Elder that wanted to make a comment or a question.
TOMMY KUGLUKTU (PHONETIC): My name is Tommy Kugluktu. I want to thank the speaking in Inuktitut, so the Elders can understand me. What I am hearing from, I seem to favour what I am hearing so far, and if it should be approved would be good. Coppermine has many, many people now, majority children, and we have many young people, they need to continue school, there has to be incentives so that they can find work, get the training. Our youth, I want to -- in support of our youth, that they have a future. I want to -- initially I think it sounds good, and if I should be here again tomorrow and take in more of the proceedings I will probably speak more again.
But it is understanding what we are hearing, and it is quite clear as we are -- as our youth come to understand these developments more and more, and they learn more and learn more about vehicles, operation of heavy equipment and any other trades and employment opportunities that may be available in the future.
The land of the Inuit, we appreciate and we take the resources, but it is to the benefit of our

youth. Thank you.

CHAIRMAN: Please state your name when you speak. Thank you.

Okay. Mr. Missal, please proceed.

GREG MISSAL: Thank you very much, Mr. Chair.

I would like to ask Mr. Don Hayley to give his portion of the Tahera presentation.

DON HAYLEY: Mr. Chairman, Board members, ladies and gentlemen. My name is Don Hayley. I'm with EBA Engineering Consultants. We specialize in northern engineering from our offices in Yellowknife.

I have been working together with Mr. Scott, whom you just heard, on the design of the water retaining and processed kimberlite retaining structures that are required for the project at the processed kimberlite containment area.

What I would like to do tonight is give you a little bit of background on some of the precedents that have been over the last ten years with design and structure of what we call frozen-core dams in this part of the Canadian Arctic.

The designs that Mr. Scott presented earlier are based very much on experience that we have gained over the past eight years at the Ekati