**Video Transcript**

**North Central Victorian Goldfields Ground Release - Tuesday 2 March 2021**

*Brett Millsom*

Good afternoon and thank you for making the time available and taking the time out of your day to attend this information session regarding the North Central Victorian Goldfields Ground Release.

My name is Brett Millsom.

I’m the Acting Manager of Community and Stakeholder Engagement with the Minerals team in the Department of Jobs, Precincts and Regions, and I’d like to start today’s session by acknowledging the traditional owners of the land on which I am coming to you from, which is the Gunaikurnai people, and pay respects to elders past, present and emerging.

And given this is a virtual session where we’ve potentially got people streaming in and beaming in from potentially right across Victoria but also maybe other parts of Australia, or internationally, would encourage you to do the same and take a moment to pay respects to traditional owners of the land on which you are joining us from.

A very big welcome to you, I will get into some of the housekeeping before a provide a bit of an overview of what we’re going to talk about today.

[Slide: Asking questions]

So, this is a live team session, and while we can’t actually see you on this call there is still an opportunity for you to engage with us and ask questions via the live event Q&A function which is those two little speech bubbles you see just there that my curser is hovering over.

If you click those there’ll be an opportunity for you to type in your questions, and I would encourage you to do so throughout the course of the presentations if there’s anything that you are keen to know a bit more about, just jot your question down in there and we’ll get to it towards the end of the session.

The last 12 months have certainly taught us that technology is great when it works, but inevitably there’s always those times where it does pose a challenge or it doesn’t quite behave in the way that we would like it to, or we can’t quite rectify an issue and my colleague Donna Mongan’s number is on the screen just there.

If you are having any issues, whether that’s joining the session or asking a question, please don’t hesitate to get in touch with her on the mobile number provided just there.

[Slide: Purpose of today’s session]

So today is the second of three sessions that we’ve been delivering over the course, we started them last week and have one more to go next week, and it’s really – there’s two key purposes of these sessions.

The first is to provide an overview of the geology of North Central Victoria, and the research has ultimately been asked to conclude that that region may be prospective for gold, and my colleague Ross Cayley from the Geological Survey of Victoria will pop up on your screens in just a moment, and he’ll take over from me and provide that presentation.

And Ross is certainly a wealth of knowledge on all things Victorian geology, but for the purpose of today particularly the geology of North Central Victoria and the work that’s been done over the last several years that’s ultimately culminated in this tender process which is what I’ll talk to you about once Ross has finished.

Towards the end of 2019 an international tender was opened for blocks of land in that North Central Victorian area for minerals exploration off the back of the recent geoscience research that’s been done.

But I won’t go into that in too much detail just yet because all that will still be to come.

But I think without anything further from me I might handover to Ross.

And just a reminder there is that chat function there, any questions you might have do pop them in there and we’ll come to them at the end of the session.

So over to you Ross.

*Ross Cayley*

Okay, thank you Brett.

So, afternoon everybody, thanks for turning up and attending this presentation.

[Slide: North Central Victoria Ground Release]

Today I’m going to talk about a few things related to the Central Victorian Goldfields Ground Release.

And the four main topics I’m going to talk about is an introduction, who is the Geological Survey of Victoria?

So I’m a Senior Geologist, I’m a Research Scientist who works for the Geological Survey of Victoria.

Who are we?

Why the current mineral exploration interest in North Central Victoria?

What is mineral exploration and how is it done, and will it be done in North Central Victoria?

And, the last question, will there be a mine, and if so what type might it be?

So let’s get started.

[Slide: Geological Survey of Victoria (GSV)]

So the Geological Survey of Victoria is the Victorian government’s geoscience agency.

The reason the Victorian government has a geoscience agency is that under Crown law the minerals of the state are owned by the Crown.

So the Crown owns the minerals collectively on behalf of all of us, and like any other asset it’s encumbered upon government to understand its asset, and the minerals are an asset, so the Victorian Geological Survey’s job is to understand that asset so that it can be managed in an efficient and responsible way on all our behalves.

So we’re responsible for understanding the state’s geology and we do this by undertaking geoscientific investigations.

We do geological mapping, we make maps of the rocks and mineral systems of the state, so that we have a better idea of where they are and how those systems might have formed.

And we collect and analyse all sorts of geoscience data and we collate third party data as well and try and build geological knowledge of the state.

It’s an evidence-base so that government can make informed management decisions over the ground.

I’m a public servant so your taxes pay my salary, and your taxes pay for the growth and building of this knowledge and data.

It’s owned collectively by all Victorians, so it’s available for all of us at no charge online, and available for download.

[Slide: Why the current mineral exploration interest in North Central Victoria?]

Well to first answer this question, or first I’ll review the area that we’re talking about, so it’s the four tender blocks here in Central Victoria which have been under an exemption for mineral exploration for the last few years and are now being offered as a part of the competitive tender process.

Just for a bit of location, there’s Bendigo, there’s Heathcote, there’s Axedale and there’s Rochester, just to put a bit of context around where those four exploration blocks are.

[Slide: Mineral exploration interest …]

The main answer is that mineral exploration in this part of the world has always been there, but the geology of Bendigo, Ballarat, Castlemaine and Fosterville is really the heart of the world-class Victorian goldfields, the historic ones.

This region, this geological extensions have produced millions and millions of ounces of gold and it therefore retains gold discovery potential, and a lot of the surrounding area is already under active exploration licence as well.

[Slide: The bedrock of the region …]

The bedrock of the region has potential to contain some additional metals as well as gold, including strategic metals such as Antimony, and for example Antimony and gold are both being mined and produced from a mine at Costerfield nearby.

Now a few things that Central Victoria is not prospective for, the bedrock geology of this part of the world has been heated too high in the past to have any possibility of containing any oil or gas, and the geology is far too old and of the wrong type to contain any coal, so the bedrock that hosts the gold for example was deposited and formed before land plants had evolved, so without land plants and without that sort of vegetation you can’t get coal.

The older bedrock that hosts the gold is covered in the north underneath younger sediments of the Murray Basin, but that Murray Basin sediment is too thin to contain commercially significant oil or gas, and previous exploration in the area has shown that no economic gold resources exist there.

So what we’re talking about today is really what the bedrock can have in it, and what we understand it to have in it is gold and potentially some strategic metals as well.

[Slide: The Tasmanides Orogenic System in Eastern Australia]

A bit of a summary of gold.

Central Victoria has the richest orogenic gold deposits in the whole of Eastern Australia.

So this is what made marvellous Melbourne marvellous.

Only the famous orogenic goldfields of Western Australia rival Victoria’s for size.

It really is an outstanding area even though Victoria is quite a small place.

[Slide: Gold in Victoria]

Looking at some statistics, the total all-time gold mined globally in the whole of human history is about a little bit under 200,000 tonnes, it gets slightly more each year.

Of that total amount of gold mined all-time Victoria’s recorded gold production is a little less than 3,000 tonnes, it’s about 1.5% of the total all-time gold production of the whole world, but from just a tiny part of the land area, so the goldfields themselves like just 0.03% of global land area, and what this means is Victoria’s goldfield geology is 100 times richer in gold production than the global continental average.

So this is a really globally significant place to find gold and that’s why people are always interested in looking here to try and find it.

Zooming in a little bit on this geology map of Victoria that shows where the main goldfields of Victoria are located, this is a more detailed schematic geology map.

[Slide: Schematic geology map - Willman et al., 2010]

So geologists like to try and subdivide geology into areas of rocks with common attributes, and so attributes might be the age of the rock, or the type of rock, or the way the rock has been deformed and folded and faulted, so in this case in Central Victoria we have a series of different zones, the Stawell Zone, the Bendigo Zone, the Melbourne Zone and the Tabberabbera Zone there.

Most of what we’re talking about today is the northern part of the Bendigo Zone.

And the Bendigo Zone is named after Bendigo of course which is a world famous goldfield in its own right, Ballarat, Tarnagulla, Maldon, Castlemaine, all these different deposits, Fosterville, occurred in the Bendigo Zone.

Now you can see the location of the large historic deposits by the green and orange blobs on that map.

The colour coding relates to the age of the deposits, so we consider the green deposits of the Bendigo Zone to be older in age than the orange gold deposits in the Melbourne Zone.

For example, you can see that the gold deposits tend to be elongated north/south and that relates to trends of faults and folds in the bedrock geology and the gold sources are following those structures.

[Slide: Primary (hard rock or ‘reef’) gold versus Secondary (placer or ‘alluvial’) gold - including historic photographs and diagram of mining]

A little bit of geology 101 about gold deposits and how they get into the bedrock, and Antimony as well.

These minerals were introduced into the bedrock when these rocks were deformed in the Bendigo Zone about 440 million years ago.

So these rocks originated on the sea floor and as they became deformed and uplifted to form part of the continent, quartz veins those pale scribbly lines there, were introduced into the rock during metamorphism and gold came in with the quartz to form those veins and those veins are distributed throughout the bedrock.

Now when they’re under the ground they’re hard to see, but where erosion intersects those veins at the surface, the primary veins, some of that quartz and some of the metals that that quartz vein contains get released to the surface.

And so as erosion continues, especially some of the gold, becomes free gold and it falls down underground into an adjacent creek, and at that point it becomes a secondary gold deposit.

Now the thing about a secondary gold deposit is they occur in creeks and they’re predictable, they’re quite easy to find, and this is what the gold miners were finding back in the day in the 1850s and 1860s when they started just literally panning their way up creeks looking for alluvial or secondary gold.

Once they discovered a secondary alluvial gold deposit they could actually move in and mine that secondary deposit.

These are much easier deposits to find, and they could start to industrialise that process.

So in central and western Victoria, this is a historic painting from the late 1850s early 1860s, this particular one is Ararat but it illustrates the goldfield quite well.

You can see all the gold diggings are down in the valley, the reason they’re down in the valley is because all the individual gold mining pits and shafts there are accessing secondary or alluvial gold in the valley.

And it was really only once those initial rich alluvial deposits had been exhausted that the gold miners had to try and find the primary source of the gold in the adjacent hills of bedrock.

How did they do this?

Well the first thing they did is they chased the secondary gold and the soil upstream in the creeks and soil profiles until that gold ran out.

And then at that point they examined the bedrock to see if they could see a primary source that was shedding gold into the soil or alluvium, and when they found that primary source it would be a quartz reef, sometimes they were quite easy to find, they could start getting stuck into that primary gold deposit and chase that deposit underground.

So this is a photograph of Bendigo in the 1930s of gold miners doing exactly that, chasing these pale quartz reefs sitting in dark bedrock underground beneath Bendigo extracting the gold, and to a certain extent that’s the same process we do to this day.

So this is a 3D model representation of the underground gold mine that’s currently operating beneath Ballarat CBD today, the same technique, much more modern techniques/methods used to extract the gold though.

[Slide: the most common host rock for primary gold deposits]

The most common bedrock host for Victoria’s primary gold deposits is the most common bedrock, and in Central Victoria that is quartz reefs and veins that infill voids that have developed in ancient folds and faults in deep marine sandstone and slate.

So these are the common rocks you see in the goldfields like Bendigo and Castlemaine and Fosterville and places like that.

These rocks of course were laid down as layers in the sea floor, as horizontal layers, they’ve become folded due to plate tectonic processes that were operating 450 million years ago, at the time when the gold was formed, that’s why it’s called orogenic gold, it’s related to origins which are mountain ranges.

So mountain building has folded these rocks.

[Slide: Diagrams of how rocks fold and fault]

So what happens when you fold rocks, well it’s just like buckling a carpet, so you get synclines and you also anticlines and you get these horizontal rocks that are buckled and uplifted and folded.

And in the process of that happening you’re making the continental crust thicker and uplifting it out of the sea so that we can live on it, and the other things that can happen is that you cause the rocks to become heated and metamorphised and those processes can lead to fluids moving through the rock and those fluids can transport gold.

And the fluid gets precipitated out where gaps are developing in the bedrock, and the common gaps that develop in the bedrock are when folded layers like this become faulted.

So as you fold layers and faults become tight eventually faults cut through the folded layers to accommodate more deformation and the rocks get shifted and fractured.

And in places where faults change in angle, like for example here, you can get gaps forming and the fluids carrying gold can be focused into those gaps, and that’s what we see is a very common process for gold deposits in Victoria.

[Slide: Fosterville cross-section]

So for example, here’s a cross-section looking down two kilometres, looking north, cut two kilometres deep slice through the earth, looking at the Fosterville goldfield, and you can see that I’ve sort of designed my cartoon to match their mine plan.

This is the exact sort of setting that has resulted in the formation of the Fosterville goldfield that we’ll talk a little bit more about in a minute.

If you look at individual bits of these systems, they’re replicated across Victoria, so for example in Eastern Victoria here’s an old historic mine that Geological Survey of geologists managed to go into and map the transition from a steep fault to a flat fault where that quartz reef just sitting above the guys heads there, is able to precipitate.

[Slide: Photos and diagrams of folds and saddle reefs]

When you fold rocks there’s other ways of forming gaps as well, and another way can be to squash the beds apart in the hinges of these folds, and this is a cross-section from Bendigo, these are famous quartz reefs called saddle reefs, and they were also recognised across Victoria.

Here’s an historic scope where a quartz reef has been mined out in the Blackwood Goldfield.

[Slide: Mineral explorers have a new appreciation of the ‘size of the prize’ (Fosterville)]

The reason mineral explorers are so interested in really looking hard for gold in Central Victoria now is that they have a new appreciation of the size of the prize, and that’s Fosterville.

[Slide: North Central Victorian Goldfields Ground Release]

So going back to our geology map of the state and the four tender areas in colour there, Fosterville sitting sort of in the middle, there’s an existing mining licence surrounded by the tender release areas.

[Slide: Schematic geology map - Willman et al., 2010]

So on our geology map that’s the location of Fosterville there, a little bit east of Bendigo.

I mentioned before how the geology trends north/south, so you can see the prospectivity of Bendigo can also extend north and south, and especially to the north where it’s sitting underneath those yellow rocks which is the Murray Basin cover, you can see no goldfields have been discovered under there yet, this is something we’re working towards in the future, that’s our area of interest.

[Slide: Significant Drill Intersections of 2017]

Some statistics, this is a chart of the significant drilling features of 2017 globally for all metals, and Fosterville sits at the top of that chart because they had the world’s best dill hole intersection of 15 metres at about almost 1500 grams per tonne gold, this is a world-class intersection and it was the best of any metal for the whole world in 2017.

What does that look like?

[Slide: Australian Mining]

Well it’s a quartz reef which is a tail rock, the silica literally studded with gold, it doesn’t really get any better than this.

All mineral explorers would want to find something like this, and this is why it has the whole world’s attention.

[Slide: Contributed Commentaries]

When you have drill hole discoveries like that and you start to mine the deposit, it’s not surprising that once these deposits are being mined they produce some of the highest grade gold in the world, and last year the Fosterville gold mine was the highest-grade gold mine in the world.

So as geologists we are interested in systems and geological processes where you can have one of these sorts of deposits you can have more, and so geologists understand that there will be more of these around, they’ll just be buried and a bit hard to find, but they’ll be somewhere in the centre of Victoria.

[Slide: Fosterville - Swan Zone]

That’s what the really productive part of the Fosterville gold deposit looks like, it’s not enormously wide, you can see the horizontal white line there is about 5.8 metres, and the quartz reef is the pale rock that contains the gold, but it is quite long, it’s hundreds of metres of long and it continues bottom left and top right as well.

At our original cross-section we’re really looking at this bit down the really deep levels in the mine, this is a blind deposit, you know, hundreds and hundreds of metres below the surface found using modern geology.

It couldn’t have been found by the old-timers this way, this is one of the changes.

[Slide: Graphs of Ballarat, Wattle Gully, Four Eagles, Fosterville, Lockington South]

One of the other things to note is that the geological style is just governed by physics and the physics of the way rocks deform and the way fluids are formed and how they carry gold, so it’s not surprising that these processes are repeated in lots of different mines, and so you can see there we’ve got Ballarat, Fosterville, another Ballarat cross-section, Wattle Gully, Lockington.

We see the same pattern repeated across the place, the biggest challenge is how to locate them, they’re very hard to find when they’re buried.

[Slide: International gold price is at historic highs, demand (including for critical use in modern electronics technology) is at historic highs]

Another reason mineral explorers are currently interested in looking at gold is the international gold price is near historic highs, and that’s because the demand for gold is also at historic highs.

[Slide: Graphs of gold prices and gold demand]

So here’s a few graphs to illustrate that.

You can see the gold price at the moment is not the highest it’s ever been but it’s pretty close.

More importantly, for the last decade it’s been quite sustained, and the reason it’s quite sustained is really the growing size of the orange slice of that pie down the bottom which is the use of gold for modern electronics.

So when I say modern electronics it’s the electronics in the devices that you’re using to view today’s presentation, and also things like renewable energy infrastructure for the wind turbines in my background picture there, all these things require gold.

It’s a critical metal, we have to get it from somewhere and Victoria is a world-class place to get it.

[Slide: New geoscience, new exploration technology = new opportunities, more focused, efficient exploration effort]

We’ve got new geoscience and new exploration technology which is allowing us to do a more effective exploration job than was done by the old-timers who were first looking for gold.

This opens up new opportunities and an ability to be more focused and efficient in our exploration as well.

[Slide: Primary (hard rock or ‘reef’) gold versus Secondary (placer or ‘alluvial’) gold]

So looking at our schematic cross-section again, one thing to emphasise about gold exploration is that finding surface gold deposits where they’re sticking out of the ground is relatively easy, and the reason for that is you don’t need to understand how they got there you just need to find them.

In contrast finding completely buried gold deposits is really hard, that requires modern geoscience and that’s where we’re getting to today, this is one of the new opportunities that technology has brought along for us and the science as well.

[Slide: New Mineral Systems models - Key Commodities (GSV)]

So what does that new technology look like?

Well it can look like better geological maps, maps that include mineral systems models that allow us to be more predictive at a range of different scales, about the sorts of metals and sorts of settings you might expect to find in different parts of the state.

It’s also new technology when it comes to exploring for things like gold, so for example, real-time non-destructive chemical analysis that’s really cheap and quick, handheld XRF guns for example where you can get 60 elements analysed in just a minute without having to collect samples and move them from in situ, this makes analysing and doing quick surveys to locate areas of great interest much quicker than it has been in the past.

Also things like geophysics, in the past all geophysics was quite expensive, but modern technology, for example small unmanned airborne vehicles is making these sorts of surveys much cheaper and quicker to deploy, and much less impact on surround land users as well.

Zooming into Central Victoria for a look at the sorts of things we can do with modern geoscience these days.

[Slide: North Central Victorian Goldfields - geophysics to look deeper]

Here’s our geology map of the area with the tender areas shown on there again.

We can colour code the yellow Murray Basin cover sediments based on thickness, so the dark red area is where the Murray Basin sediments are thicker, and the pale red is where those sediments are thinner.

Even where they’re thin they’ve done a pretty good job of stopping historic gold miners finding gold in the bedrock underneath, and you can see that because the gold deposits, the yellow dots there, all pretty much stop close to the margin of the Murray Basin, and that’s because it’s very hard to predict where they are where it’s covered by those younger yellow rocks sitting on top.

But now we have access to geophysics so different bedrocks have different properties, for example different densities, and we can measure those using geophysics and we can colour code those.

So for example, the gravity over dense rocks is slightly higher and that’s colour coded in red, and the gravity over less dense rocks like for example granite, is lower and that’s colour coded in blue.

And you can see that that’s the geophysical properties of the bedrock that’s exposed south of the Murray Basin, but we can take that geophysics and trace it under the cover of the Murray Basin and use it to strip off that cover and predict where the structures that we know host gold in the south might continue and host gold to the north under cover.

This is a way of targeting mineral exploration more effectively.

[Slide: North Central Victoria Ground Release - Mineral exploration - what is it and how is it done?]

Now back to mineral exploration, what is it and how is it done?

[Slide: Mineral Exploration …]

Mineral exploration is just a systematic investigation of the mineral potential of an area of ground with the aim of finding something that might be economic and it typically involves just a new exploration idea as the recognition that newer understanding, newer technology might mean that the mineral potential of an area remains unrealised, and this in spite of previous mineral exploration because the previous stuff was done using older technology.

Now we have new technology and new ideas, so in order to progress that endeavour, you analyse legacy geoscience data to see if there’s something hidden in the old data that may have been overlooked.

You do a gap analysis, work out what new data, what new ideas might you need to do to test your new concept, and then you deploy the mineral licence area in stages starting at a reconnaissance-scale and then focusing in on areas that show promise.

[Slide: Mineral exploration method life-cycle 1: Desk-top study]

So step one is analysis of legacy data, there’s government data, there’s company data, there’s academic data out of universities, there might be all sorts of gems hidden in that data.

[Slide: Mineral exploration method life-cycle 2: Reconnaissance-scale geoscience investigations]

And then you undertake reconnaissance-scale geoscience investigations and in Central Victoria that normally involves geological mapping, so geologists on the ground looking at rocks, analysing the rocks and so often these days that’s using handheld XRF guns and the like to try and do quick, rapid surveys, acquiring reconnaissance geophysics and perhaps doing rock sampling traverses with geochemistry analysis offsite for more detail.

These sorts of reconnaissance surveys used to involve drill traverses but that’s now less common due to technology advance.

[Slide: Mineral exploration method life-cycle 3: Focused geoscience investigations]

As you gain understanding of your licence area eventually you start finding some bits seem to have more promise than others, and so that allows you deploy additionally focused rounds of investigation, much the same process but just increasingly focused.

Eventually if you start with a discovery that looks like it might have economic promise drilling will eventually be done.

It’s always needed to demonstrate that a mineral resource is economic and to define the size and nature of that mineral resource.

[Slide: North Central Victoria Ground Release - will there be a mine, and what type might it be?]

The final bit of the talk, will there be a mine and if so what type might it be?

[Slide: Most common outcome of a Mineral Exploration Licence in Central Victoria]

It’s important to emphasise that the most common outcome of mineral exploration licences in Central Victoria is that no new economic mineral discovery is made, and the exploration licence is relinquished, and really at that point it’s up to someone else to have some new technology to have another go in the future.

The statistics across the state indicate that it’s really less than 1% of all exploration licences awarded in Victoria have ever progressed to a mining licence.

It’s a really hard thing to find a new gold deposit.

Assuming a mineral discovery is made, based on current knowledge the most likely mineral resource will be a high-grade primary gold or Antimony resource like Costerfield or perhaps Fosterville.

These sorts of deposits are typically narrow and deeply rooted, we understand the structural style, and so these sorts of deposits are extracted using underground mining methods.

Fosterville for example is underground and the mines at Ballarat, Stawell and Costerfield which are active at the moment, they’re also underground mines.

This pattern of geology persists north of the current goldfields, so underneath the Murray Basin.

So we predict that if something was found in the bedrock underneath the Murray Basin it would be of the same style of mine, the same way.

That is my talk.

Thank you, back to you Brett.

*Brett Millsom*

Many thanks Ross, and I’m sure you all got something out of that, Ross is a wealth of knowledge on all things geology in Victoria.

I’ll just go back to this one here, bear with me for just a moment.

[Slide: Agenda]

All right, now that you’ve got a bit of an understanding of the underlying of the geology of the region and our increased understanding of why it may be prospective for gold.

I’m here to sort of provide a bit more of an update on what we’ve done with that research, and that has really culminated in the North Central Victorian Goldfields Ground Release which I mentioned earlier at the start of this session, but it was an international tender, or it is an international tender that was opened towards the end of 2019 for four blocks of ground to the north and east of Bendigo for companies to undertake minerals exploration.

This is a new approach for us and through this tender approach we are raising the bar, not just focusing on company’s exploration credentials and their ability to undertake and finance a top-rate minerals exploration program, but to also work with traditional owners to keep landholders and community engaged, their environmental credentials and so on and so forth.

So I’ll explain how this process is a little bit different to how minerals exploration licences might usually be awarded in Victoria.

I’ll also provide an update on the current status and next steps for the tender, and there’ll be an opportunity for questions at the end.

[Slide: North Central Victorian Goldfields Ground Release]

So as I mentioned, this tender was opened in late October 2019, the Minister for Resources opened it at the International Mining and Resources Conference, which is a large industry event that’s hosted in Melbourne each year, and it was four blocks of ground made available and tenders were invited from experienced and well-credentialed explorers from, not only across Australia, but also across the world to apply for minerals exploration licence for one of four blocks of ground.

And those four blocks you’ll see in the next slide just here.

[Slide: Maps showing the four blocks of ground]

These are all available on our website, earthresources.vic.gov.au.

You can view a higher resolution version of these and it does show them in more detail, but you can see, you’ve got Bendigo just over here, you’ve got the current Fosterville operations just here where my curser is hovering over, and the blocks really wrap around and extend to the north of that.

So you’ve got Bendigo just here, Heathcote down here, and then you’ve got – most of them fall within the Greater Bendigo Local Government area that you can see we’ve got Campaspe up here as well.

[Slide: The tender process]

So this is a six step tender process, so the first three of those have been completed and we’re currently working our way through the fourth one of those, and then we’ll proceed on in the process.

But the first step is really that ground selection process, and that was really informed by the work that was done by the Geological Survey to better understand the underlying geology of the region that indicated this prospectivity for gold.

So that was really the driving piece that determined and informed the selection of the ground and the four blocks.

It was then a process – the second step in that process was to design the tender.

And I might just pause on this for a moment.

So I mentioned earlier that this is a different process to how we would normally undertake minerals exploration licencing in Victoria, under normal processes licences were applied for in what’s called an over-the-counter process where an explorer essentially presents to the department, identifies the area of ground they’re seeking an exploration licence for, and then goes through the relevant process of submitting a work program for consideration, and then that licence, assuming that they meet the relevant criteria, is considered and awarded by Earth Resources Regulation for that ground.

Under the Mineral Resources Sustainable Development Act, which is the Act that regulates mining and minerals exploration in Victoria, there is the provision to apply an exemption for certain areas of ground where the purposes of that is to, in some instances, allow for the orderly and optimal development of a resource deposit.

So based on what was known about this region’s prospectivity an exemption was applied over the area that you saw in those previous slides just here.

[Slide: Maps showing the four blocks of ground]

This area where those four blocks are have been subject to what’s called an S7 Exemption and the reason we call it an S7 Exemption is because of the Section 7 of the Mineral Resources Sustainable Development Act, or the MRSDA as we like to call it, that provides the provisions under which that exemption can be applied.

Once that tender was designed that included obviously development of an assessment process, an evaluation criteria, and I’ll talk about the assessment process in a little bit more detail shortly, but it was then a process of opening the tender which occurred at the end of October 2019, and then closed in the middle of February 2020.

It’s then a process of the evaluation selection of which we are currently working through at the moment, and are likely to conclude in the coming weeks, and then that will proceed on through licencing in the second quarter of this year, assessment for licencing, with a view to the successful tender as ultimately being licenced sometime around July, and then being able to undertake their exploration programs.

[Slide: Raising the bar]

The big focus, or one of the big focus points through this tender has been this idea of raising the bar and this increased focus on not only the technical credentials of the company and their ability to undertake and finance an exploration work program, but really going above and beyond those normally expected and legislated standards to put a greater emphasis on things like, what we’re calling broadly a responsible exploration, but what that means and how we’re defining that, is essentially the ability and the intentions of the company to work in partnership with traditional owners as they undertake their exploration program, to be able implement and deliver a well-designed landholder and community engagement program, to be really active in their safeguarding of the environment, to look to where they can, you know, local content intentions and how they’re potentially going to support the local economy through their exploration program whether that’s through the procurement of goods and services or otherwise or so on and so forth.

So there’s very much a big focus on that through this tender process, in fact 45 of the total, I guess, 100 points that are available for the tenders are scored against as a part of this tender process are actually aligned to those responsible exploration criteria.

So it’s a very much – it’s a new focus.

The other point I would just like to mention here is that the assessment of tenders is actually being done independent of the department, so there’s three independent panels that have been convened to undertake the assessment of tenders.

We have what’s called an Independent Assessment Panel, which is the technical panel that’s undertaking the assessment of tenderer’s work programs and their technical credentials to be able to deliver that.

We have a Traditional Owner Advisory Panel, which is undertaking an assessment of tenderer’s previous experience in working with traditional owners and their intentions to work with traditional owners within the Goldfields Ground Release area.

And, we also have a Responsible Exploration Advisory Panel, and that panel is really tasked with looking at those raising the bar criteria that aren’t related to traditional owners, so that’s things like the community and stakeholder engagement plans of the tenderer, their commitment to safeguarding and protecting the environment above and beyond, I want to stress there, the minimum legislative standards, it’s absolutely not only expected but required under the various Acts that regulate minerals exploration in Victoria that tenderers and ultimately successful licensees would be expected to comply with all of those.

But this is really looking at, I guess, what the intentions are to go above and beyond that.

[Slide: Minerals exploration]

One of the questions we often get asked when we run these sorts of sessions is what does minerals exploration actually mean for me as a landholder that’s in the area?

And I guess the answer to that question really is not much.

Minerals exploration is something that has gone on in Victoria for decades, and for many people it’s probably gone on unnoticed.

It may have been happening in your area and you’ve just really noticed it.

I think the going stat is something like at any one time in Victoria, something like 30% of Victoria is subject to a minerals exploration licence, but the important point to stress here, I think it’s only 0.02% of that is actually subject to a mining licence, and that’s really critical to stress that minerals exploration and mining activity are very different, both are subject to very different approvals processes, and also both have very different profiles in terms of impact and environmentally but also economically.

So in terms of what you might see during a minerals exploration program that the successful tenderers might ultimately be conducting in the region, there will be a small number of landholders that will likely be asked for consent to access their land for the explorer to undertake their exploration program.

There will be a small economic boost, I guess, in the form of employees and contractors of the licensee spending money on things like food, accommodation and local goods and services that are required to support their operations.

But I should stress that, I guess, the economic boost and the potential job creation that goes with resources projects in Victoria largely come back, if a company was to proceed with developing a deposit, if it was to identify a potentially viable deposit and to proceed with mining that deposit and establishing a commercial operating mine.

And during the exploration program you also might see the occasional truck and vehicle, either in town or on either private property or tracks, to gain access to that.

[Slide: Special places, features safeguarded]

Minerals exploration has been going on in Victoria for many decades and has co-existed with a number of other land uses including agricultural and farming land uses, and one of the reasons that that has occurred for so many years is because a minerals exploration operates under a highly-regulated regime.

Of course I mentioned earlier that the Mineral Resources Sustainable Development Act is the key Act that regulates mining and minerals exploration activity in Victoria, but there are a number of other Acts, in fact more than 20 that provide safeguards over special places and special things that govern what explorers can do.

Now a number of those are highlighted on your screen just there, but they extend to providing safeguards to things such as national parks, waterways and aquafers, native vegetation, cultural and indigenous heritage and threatened plants and species.

And it’s important to stress here that an explorer is expected to comply with all of these relevant Acts that apply to their operations not just the Mineral Resources Sustainable Development Act.

So where the Act applies to their work the expectation, and not only the expectation but the requirement in fact, is that an explorer would comply with that.

[Slide: Land access consent agreement]

A couple of years ago the department recognised that for landholders that are approached by an exploration company seeking to access their property to undertake minerals exploration activities, they’re entering into those negotiations with explorers is not something that is core business for farmers.

And so we developed in part, or in consultation with peak bodies for the industry, but also with the Victorian Farmers Federation, a template land access consent agreement, or what we often call the land access consent toolkit, which is available on our website and we’ll provide the link to you in some of the follow up information that’s circulated post this session.

But that’s really a tool that we developed to help give landholders, I guess some conversation starters and some confidence, to be able to enter into those negotiations with explorers.

It’s very much – there’s a couple of points to stress here – it’s very much a conversation starter.

It is a template agreement but it’s important to stress that depending on the nature of the operation that are being undertaken on your property, it’s really important to make sure that that agreement reflects the operations that you’re undertaking and is adapted to suit your own circumstances.

So for some of you, if you’re operating an agricultural property, things such as maybe biosecurity might be of the utmost importance in making sure that that is taken into account, so that might be something that you want to formalise through this agreement – through an agreement such as this template agreement.

For others there might be particular access tracks or access routes that you would rather an explorer didn’t proceed down, so that’s something that’s important for you to formalise through an agreement such as this.

This is a voluntary agreement as I mentioned, and it is also flexible to be adapted to your own circumstances.

You don’t have to use this if you wouldn’t like to, explorers often have their own land access consent agreement and you might have a look at that and decide that that works better for your own circumstances.

But it’s really worth, if you do find yourself, and I should stress it is a small number of landholders that are often approached by explorers, minerals exploration is very targeted in nature so it’s only likely to be a small number that are approached by an explorer seeking access to their property, and they’re likely to have those conversations one-on-one with you about that if you do find yourself in that position.

But it’s really about working through those and making sure that those aspects, whether that’s access conditions, compensation if it’s applicable, communications, dispute resolution, access, time of access, so on and so forth are all formalised in that agreement.

[Slide: Current status and next steps]

That just about brings us to the end of today’s session.

There’s a couple of things, I guess I’ll wrap up before we get into the questions in terms of the current status and next steps of the tender, so work is currently underway as I mentioned, evaluating the tender responses.

We are hoping there’ll be a decision on successful tenderers in the coming weeks.

You might have been wondering – we did flag that the tender closed in February last year but that we’re still working through the final stages of that assessment process.

There’s a couple of reasons for that that are outlined there.

The first being that that there was a strong response to the tender and we did receive a higher than expected number of submissions.

Also as we were entering into that closing period of the tender last year, in the middle of February, of course you would all be aware that that was around about the time that things with COVID-19 were starting to take hold and the way that we were working was changing, and so we did have to allow some additional time there to complete the evaluations of the independent panels to complete their evaluations of tender responses.

I talked about the three panels that are assessing the tenders, the Independent Assessment Panel just to recap, obviously assessing the technical elements of those tenders, the Responsible Exploration panel assessing the community engagement plan, the environment credentials, local content intentions and local procurement intentions and so on and so forth, and the Traditional Owner Advisory Panel assessing the intentions of licensees or tenderers to work with traditional owners in delivering their exploration program.

I guess just the final point to highlight there before we get into the questions, is that the department does recognise the importance of delivering a result that contributes to improve social licence for the minerals exploration and development sector in Victoria, that’s certainly why you’re seeing this really increased focus on raising the bar and these broader and additional elements that wouldn’t normally be considered potentially in licence applications through this tender, and that’s really a key pillar of the Victorian government’s Minerals Strategy.

One of those key pillars is building confident communities and making sure we embed that responsible exploration element in these exploration programs is a key part of that.

I will get to some of the questions in a moment.

[Slide: Questions - contact details]

I will just quickly bring up on the screen my contact details there and the contact details of my colleague, Donna Mongan.

If you do have any questions do get in touch with us, we are happy to answer any questions that you might have regarding whether it’s the geology of the region, I’m sure we can reach out to Ross who’ll be able to help us with those, or the tender process in general, obviously noting that while the assessment process is ongoing there are some things that we can’t share and can’t say.

That brings us to the end of the formal presentation per se.

I might get struck into some of the questions, we’ve had a couple come in.

So I’ll start with one around can I refuse access to my land?

This one is one that comes up quite often.

And it’s a bit of a complex response so bear with me as I work through it.

So the Mineral Resources Sustainable Development Act, the MRSDA, does allow explorers to explore for minerals on Crown and freehold land subject to them having a land access consent agreement in place, that is essentially subject to them having the agreement of the landholder.

Now, in instances where an explorer is to approach a landholder and is unable to get that consent, whether that’s over access conditions or compensation, the matter can be referred to VCAT or the Supreme Court, and VCAT or the Supreme Court will only rule on the compensation payable, not where access is to be provided.

Access is taken as given at this point, and once VCAT or the Supreme Court makes that ruling on compensation the explorer is eligible to access the property.

A couple of other points just to make on that, in most instances explorers and landholders are able to come to an agreement that’s mutually beneficial for both parties, explorers in our experience are generally pretty open and flexible to amending their exploration programs if there’s, you know, particular parts of your property that might be off limits, so it’s really important to have those conversations early and to be really open and upfront in those conversations with the explorers if you do find yourself in that small category of – in that category of that small number of landholders that is approached by an explorer looking to access your property.

I guess on the point around compensation, the other point to stress there is to really think about what works for you.

Obviously compensation can be financial but there’s also been instances of compensation in kind where explorers have had, sort of, machinery on property that’s allowed them to do work as a form of compensation to farmers that might be pushing in tracks or erecting fences or so on and so forth, so that’s something that we really encourage you to think about.

And I guess the final point to make there is really encourage you to, within reason, to do as much as you can to get an agreement without the matter having to go to VCAT or the Supreme Court, obviously as it would be in most cases, that would be a matter of last resort.

And when you do get to that point, I guess, a negotiation of bargaining power is taken out of your hands and it becomes a matter that VCAT or the Supreme Court makes a ruling on and you do lose that.

So while you are still in negotiations, or in negotiations with the explorer, there is that opportunity for you to really try an negotiate and agree to something that delivers a benefit for you as a result of this activity potentially being undertaken on your property.

If gold is found on my property do I get any share of the profits?

Unlike, in potentially other jurisdictions around the world, in Victoria and in all states and territories the Crown owns the minerals on behalf of all Victorians, so there isn’t a share of the profits paid to the landowner or the landholder, there is a royalty that’s paid to the state.

A couple of years ago the Victorian Government introduced a royalty on gold, but it also does have other royalties on things such as coal that company that’s mining, and I should stress this is only payable with the company is exceeding a certain volume of resourced mine, and that generally is the volume associated with mining, that that royalty is payable to the state.

What is the likelihood of multiple mines in the four block areas?

I might, sort of, start this one Ross, and maybe handover to you to see if you wanted to add anything.

But, I think probably just picking up on the point that Ross raised around what’s the – I think Ross used the words, and I probably won’t quote exactly here, but something to the effect of what’s the outcome of most exploration activities?

And often it doesn’t result in anything.

I think the figure that often quoted around is something like 1% of exploration licences ultimately, on average in Victoria, is often a commercially operating mine.

So, history, I guess, shows and the statistics show that the likelihood of that progression from exploration on average in Victoria to minerals development is – or an operating or commercial mine is historically low.

But Ross, I might handover to you if you wanted to add anything there.

*Ross Cayley*

Yeah, sure, thanks Brett.

Look, we don’t think that the geology underneath the Murray Basin is likely, the bedrock geology underneath the Murray Basin is likely to be significantly different to the areas where the bedrock geology is exposed at the surface.

And from one of the maps I showed you in my talk you can see the distribution of the goldfields there, so the inference clearly is that there will be multiple goldfields underneath the younger cover.

And Fosterville serves as an illustration of the difference modern geological understanding can make to an historic goldfield.

So Fosterville was an historic goldfield but it was a very small one, and so by bringing modern geological understanding to it, explorers were able to look deeper and discover, sort of, a huge amount of wealth at depth.

So, taking all those things we already know about it into account, it’s not impossible that there couldn’t be multiple mines found in even just one of the licences, but it’s just very uncertain.

So I can’t really comment on any certainty because we just don’t know, and that’s really what drives mineral exploration.

Explorers don’t really know, they’re just sort of, the geology suggests that, you know, there should be the chance of finding them, and so mineral explorers are going to take that punt.

But until they look we just won’t know, and that’s one of the things that makes gold extremely expensive and valuable, it’s so hard to find.

*Brett Millsom*

Thanks Ross.

It looks like that’s all of the formal questions, or the questions that have been submitted on the chat that have come in.

That really brings, with five minutes to spare, it brings our, sort of, session to a bit of a close today.

I guess the final point for me to make is just to reiterate that point of any questions please don’t hesitate to get in touch, and we’ll do our best to answer them all.

If we can’t we will steer you in the direction hopefully of someone that can, and would certainly encourage you to keep an eye on the website, earthresources.vic.gov.au, for further information about the tenderers that’s announced.

In the coming weeks we’ve got one more of these sessions next week as I mentioned, but following that session we will send out some links to some of the information that I’ve flagged today, including the land access consent toolkit, and we’ll also send out an evaluation survey as well with that, so keep an eye out in your inboxes for that.

In addition with that will also be responses to the questions that have been received both with pre-registrations, which there was none for today’s session, but we have had with some of the other sessions that have also been asked during the session.

So that really is it from us.

A big thank you from me to those of you that have made the time and taken the time out of your days over lunch to attend today’s session.

A big thank you also to my colleague Ross Cayley for making the time to present, and also those working behind the scenes to make today happen, in particular to Donna Mongan and John Dunlevy for all their efforts in making today’s session a reality.

And on that note we might sign out.

Enjoy the rest of your day, enjoy your afternoon and yeah, keep an eye out for further information in the coming weeks.