Welcome & Introduction

(***Slide 1***) Thanks to the IAC as well as Amy and Tom. In person hearings are important, especially as NBN in our area stands for "No Bloody Network".

(***Slide 2***) Appearing before the IAC is frightening. Not because it is appear before a tribunal and speaking in public, but rather because the decision of the IAC impacts the local and wider community, their businesses as well as visitors/tourists.

The fate of the community has been taken out of its own hands. This is due to the proponent's inappropriate proposal to site an open-cut mineral sands mine in a totally unsuitable place.

We have had only two opportunities for meaningful input into the project.

- Scoping requirements; and
- Submissions

Please understand that our community's appalling experience of the "Community Consultation" conducted by Kalbar doesn't count as meaningful. Nor was it consultation.

There are too many issues with the project and areas of concern in the EES to cover them all. Therefore our focus will be:

- Soils & Rehabilitation;
- Agriculture;
- Climate;
- Biodiversity; and
- Consultation and compliance

These topics are all complex, inter-related and inter-dependent. Themes running through the topics include local knowledge, experience and expertise, tailings & contamination, centrifuges, water (surface and groundwater), poor data and failure to comply with the Scoping requirements.

Across the state there has been an enormous increase in mental health issues resulting from the COVID situation and lockdowns over the last 18 months. This derives from uncertainly and the loss of control; of unexpected changes to plans and livelihoods as well as known and unknown third parties making decisions which control lives.

The high level of uncertainty and loss of control, like that induced by Covid, is what OUR community has lived with for the last 7 years. This is in addition to all the time our community (and in particular directly impacted landholders and the surrounding landholders) have had to devote to the problems and situations resulting from Kalbar's actions which have actively had a detrimental effect on our businesses and all other aspects of our lives in general.

Two extreme examples of this impact are:

- One attempted suicide – think about the despair that drove that action, plus the impacts on the family, the person who rescued them and their family
- One nervous breakdown – which resulted in a young man being accidentally 100 fold overdosed with psychoactive medication. He ended up in a coma, not expected to survive, but recovered – though cognitively impaired. He will not be able to run the family farm when his father dies.

The IAC's purpose is to evaluate any FURTHER unacceptable impacts of the proposed project, as the impacts to date have already been unacceptable. Failures of the regulatory regime should be taken into account. If the regulators have a history of failing to control proponents, then clearly it is highly probable there will be negative impacts. These should be included in the evaluation by the IAC.

People matter. Kalbar has ignored and dismissed the people by running roughshod over us.

Farmers within the proposed project area feel as if we are immaterial. That is, it's a given that our livelihoods and homes will be destroyed, and that our situation doesn't deserve any consideration.

This EES isn't about <u>how</u> the project would go ahead, but <u>whether</u> it should go ahead.

Most of the presentations (criticisms) will focus on specific instances of issues with the EES. We ask the IAC to remember that as shown by Professor Parkington, the scientific principles on which many of the studies are based are fundamentally flawed. We fully endorse Professor Parkington's comments. There can be no valid conclusions from poor and invalid data, especially when it then feeds inappropriate modelling.

The EES has lots of unknowns and maybes (particularly relating to economic viability, the risk to water, health risks, rehabilitation risks, risks of dam failure, risks of massive erosion …) compared with the many knowns of the existing situation (current jobs, current established and functioning industries/enterprises, expansion of horticulture and opportunities for further development).

The information provided in the EES and subsequent documents is inadequate. The risk mitigation measures are ill-considered and unenforceable. The risks of the project are unacceptable and cannot be mitigated.

Data Inadequacies

(***Slide 3***) Kalbar hasn't complied with the Scoping Requirement that calls for options that have been explored to be detailed, and the reasons for their rejection to be outlined.

- Centrifuges were explored in 2018 and clearly rejected. There is no information about them in the EES, or why they were rejected.
- Drawings of water storage were prepared in 2018 but not included in EES.
- What other information is being withheld as being incriminating?

Consultants employed have undertaken their tasks on such a complex and complicated project to the minimum standard required (e.g. Kate Stone's comment about the wind monitor), rather than performing their tasks as professionals. A builder in NZ commented on Grand Designs that we have been building the worst houses we can get away with for too long; these consultants have prepared the worst reports they can get away with.

Two examples:

- Species were not looked for as they are "unlikely" to be in the project area; and
- Utilising data from an unsuitably located wind monitor as that was all that was required by the particular standard used.

Many of the reports were based on data provided by Kalbar. There was no questioning by the proponent's consultants of the source or validity of the data (e.g. water error). The Coffey Proviso has still not been provided to the IAC, or the numbers of people who requested it from Kalbar and Coffey. This is both unbelievable and unacceptable.

The poor data has led to cumulative and compounding errors. There has been an inappropriate reliance on a set of data by the experts who accepted it and worked with it unquestioningly, as well as reliance upon one report by another person, all based on the same unreliable/inaccurate/unsubstantiated data.

Documentation is coming forth during the EES that was prepared years earlier, e.g. centrifuge testing [2018] and a failure model of the "Freshwater Dam" [prepared 2018].

- Why weren't these documents provided in the original EES?
- These documents are now out of date. The project has changed.
    - For example, the dam failure model assumes the existence of the TSF to change the spread of a flood.
    - The TSF is no longer in the plan; therefore the modelling is totally inaccurate.

For their studies, Kalbar has used the last 100 years' data rather than the last 20 years as specified by DELWP. Kalbar dismissed rainfall figures gathered by local farmers, calling it erroneous. Farmers are obsessive about recording their rainfall; their livelihood depends on it. Local rainfall records show Kalbar's rainfall data is invalid. This is discussed later in the presentation.

One of many examples of Kalbar's selective use of data is the photo purporting to show the property at 2705 Bairnsdale-Dargo Road. (***Slide 4***) The photo is actually a picture of the boundary fence between 2705 Bairnsdale-Dargo Road and Kalbar's property.

The red arrow in the bottom right-hand corner of the map (***Slide 5***) shows just where, and in which direction, the photo was taken. The opening slide (***Slide 1***) was taken approximately 200m further along the boundary between Kalbar's property and 2705 Bairnsdale-Dargo Road, and thus provides a realistic and accurate view of the property.

When Kalbar requested access to 2705 Bairnsdale-Dargo Road to undertake exploration drilling they provided the map in ***Slide 6***. We requested a clearer and more detailed map, but were told that was the best they could provide.

The map on ***Slide 7*** is significantly clearer and more detailed than Kalbar's map. This was generated by us using free software and free satellite imagery.

Slide 8 shows the sites Kalbar damaged during their exploration drilling, after being informed the country was too wet to access.

Kalbar has no comprehension at all of the volumes of water that will flow into dams within the project area; nor the speed of the flow.

Soils & Rehabilitation

SOILS (***Slide 9***)

The current characteristics of our soils are not clearly or adequately defined in the EES. As per Dr Drake's submission; there is:

- No explanation of methodology; and
- Non-standard sampling.

In addition:

- There is undue reliance on Sergeant & Sargeant and previous studies (which are all very general in nature) in both the distribution and method of sampling.
- There is a use of non-standard and meaningless testing
    - For example, total phosphorus is not used by agronomists to develop a fertiliser regime to improve the fertility of a property.
    - The standard test in Victoria for plant available phosphorus is the Olsen test.
    - Why did Kalbar use the outdated Colwell test?
- Loch admitted at a public meeting that he had never worked with dispersive soils in hill country before.
- Gypsum is calcium sulphate, i.e. it is a salt.
    - High ionic salt content in the soil will impact badly on plant & soil biology.
    - It will leach into the water-ways, impacting aquatic life and water quality.

- Loss of compaction (10% increase in volume) is problematic
    - Uneven subsidence
        - The Balmoral farmers' experience in which boom sprays could no longer be used
    - Lack of ground holding capacity
        - Strainer posts lifting and/or leaning
    - Will dams hold water?

We were involved with the Glenaladale Tunnel Erosion Project from its inception. Dr Julianne Sergeant and Peter Robinson led this. Peter had extensive experience with tunnel erosion throughout Victoria. He stated categorically that Glenaladale's tunnel erosion issues are unique.

What does dispersive soil really mean?

- Land Conservation Council (***Slide 10***)
    - The project area should have no mining activity on it as it covers:
        - Land that, if disturbed, may detrimentally affect water quality;
        - Important habitat for plants or fauna (e.g. Giant Burrowing Frog;
        - Important cultural features that could be damaged (marker trees and other Aboriginal artefacts as per the Cultural Heritage overlay map in***Slide 76***; and
        - Sites of high erosion potential.

- Water quality – Turbidity (***Slide 11***)
    - Implications for horticulture and other users:
        - Sediment laden water for irrigators (worn out pumps), gritty food and brown ice for packing vegetables;
        - Additional load on users' water filtration system.
            - East Gippsland Water has to stop pumping when there is a storm due to sediment loads from Glenaladale creeks);
        - Implications for river riparian fauna (platypus) as well as flora; and
        - Implications for fish breeding areas (hatcheries) - bass, bream and estuary perch.
    - Structures – Dams & Buildings
        - House foundations cannot be positioned on fill. Foundations in the future would require concrete piers down to the bottom of the mined area.
        - Dams
            - Many well built dams in the area fail (***Slide 12***)
            - Liners are not an option
                - Vegetable producer's liners regularly fail due to abrasion with small stone particles (+ wombats!)
            - The area suggested by Kalbar for the freshwater dam is where the Lindenow CFA fire truck bogged
                - Ground water is very close to the surface
            - ***Slide 13*** shows the dispersive nature of the soils at this site (colour and soil seeping out of the ground)

- When dams fail (not if) they will either impact the Perry River chain of ponds and food-producing land and people; then the Mitchell River and food-producing land and people - or both river systems. There is both a lack of, and invalid dam failure modelling.
- Liquefaction – custard skin
  - Locals know that in wet years it is as if we live on the skin of a custard. The sub-soil becomes saturated and loses all its structure. The sub-soil (particularly in the presence of vibration) becomes completely fluid and runs like water. With care lightweight vehicles can travel on the surface skin or crust. Once the surface crust is broken however (e.g. by a bogged drill-rig), there is nothing solid under the crust for the vehicle to rest on. Bulldozers bogged near the top of a hill have been known to almost completely disappear. Repairing the break in the surface skin is extremely difficult – simply scraping dirt over the breach is quite ineffectual.
- Erosion: Tunnel & Gully
  - Vibration (gateway)
    - The gateway used by Kalbar's exploration drilling convey is on stable land. The vibration from their traffic liquefied the ground to the stage that waves formed when it was walked on.
    - What would be the impact from more and heavier mining machinery?
    - What are the consequences of liquified subsoil flowing down into the mine pit while workers are there?
  - Centrifuges
    - The centrifuges will cause erosion issues for two reasons:
      - They are sources of extreme vibration, which triggers liquefaction in wet years. Tour operators in the Kimberly describe the bus windows shaking as they drive past the centrifuges there (and they are not permitted to stop). Centrifuge operators in the Kimberley are on 15-30 minute shifts due to the vibration. The centrifuges are closely coupled to the ground through their extensive concrete foundations; liquefaction over an extensive area is likely; and
      - The concrete foundations will be a surface which intercepts and concentrates sub-surface water flow, resulting in water flow paths which then transport sediment. A rule of thumb for centrifuge foundations is 10 times the throughput. That gives each centrifuge a foundation of 500 tonnes, or 4,000 tonnes of concrete total for each centrifuge site. What will happen to the concrete foundations when the centrifuges are relocated?

- Silt jetties are formed from Glenaladale's tunnel erosion (according to CSIRO specialist) as per discussions during the Glenaladale Tunnel Erosion Project.

- CSIRO modeling of sedimentation in the Gippsland Lakes was found to be underestimated by a factor of two when compared with the actual measurements. Dr Keith Thomas of the EGCMA attributed this to the fact that the modelling was based on gully erosion rather than tunnel erosion (***Slides 14, 15 and 16***).
    - This is an example of the good use of modelling, as the model was compared with measured actuals in order to validate it (and found to be in error).
    - Kalbar has not validated its models.
    - Mining will exacerbate erosion significantly as the rate of erosion will accelerate when the soil is disturbed and the structure destroyed (as will occur with digging a pit up to 45m deep and moving the various layers of soil around and mixing them).
- Loch stated in his Expert Witness Statement that the deep tunnelling found on escarpments would not occur in the project area (***Slide 17***). The sides of all the steep gullies are effectively escarpments, as is the escarpment down to the Mitchell River. One site on which rehabilitation works were undertaken in the early 2000s in Glenaladale had tunnelling over 6 metres deep, in layers with underground waterfalls linking the layers.
- Sediment into the waterways (***Slide18***), based on Peter Robinson's measurement (6m3/ha/18mm rainfall event) = 217 m3 per ha per year
    - = 238,700 m3 from the 1,100 ha to be mined
    - = 4,774,000 of sediment over 20 years.
    - There is no reason for it to stop.
- Perry Gully has existing deep tunnel erosion (***Slide 19***), as observed by the IAC. This automatically makes it a totally unsuitable location for dumping tailings; both coarse and fine tailings are proposed to be permanently located there.
    - No studies have been undertaken as to the impact on water (surface and ground), leachate paths, erosion potential …
    - What would happen should Perry Gully be half filled with tailings and we then get a huge dump of rain? Tunnelling through the sides of the gully and failure of the dam is highly probable.

- Kalbar is proposing to treat the first 0.5m with a yet to be determined solution and reform the landscape to resemble "stable swales" (***Slide 20***). There is existing evidence that these landforms are not stable. The swale in ***Slide 21*** is in the project area. It resembles the proposed final landform to prevent tunnel erosion, but has tunnelled in the past. The entire swale has already been treated for tunnel erosion, and it is still tunnelling (***Slide 22***).
- Risks associated with tunnel erosion have extremely long time-frames (around 10 years) before the problems become visible.
    - There have been NO field trials at this stage.
    - How will we know it has worked?
    - What will happen at the interface between mined (extremely disturbed with structure destroyed) and not-mined areas (hard surface intercepting sub-surface flows, forming a concentration surface and flow surface)?
        - This has not been investigated.

- With the long time-frames involved, how can the IAC know if the suggested "strategies" will be successful? There is not enough detail in the strategies to assess.
- Solid and independently verified evidence (over a substantial time-frame) is required (via a field trial) that landscape scale erosion will be prevented, before the first sod is even turned.
- Dr Drake's statement about dispersive soils eroding even with minor mechanical work (***Slide 23***)

REHABILITATION

- **Soil Biology** (***Slide 24***)
- Kalbar's consultants clearly lack knowledge and understanding of the role of soil biology in ecosystem succession. They have only now undertaken any testing. The sampling methodology and location(s) were not described. What will Kalbar do with the results? Is Kalbar comparing the soil biology of different ecosystems, or multiple samples from different areas of the same ecosystems? How does Kalbar intend to manage the soil biology? These are all areas they clearly haven't considered.

- Succession
    - The work by Dr Elaine Ingham (and others) shows that above surface ecological succession is driven by the sub-surface microbiome. In particular the ratio of bacteria to fungi. Bacterial dominant soils tend to grasslands; it takes fungi of the correct specific varieties to develop woodlands.
    - Tillage (and especially mining) destroys fungi. Gibson-Roy's work has all been with grasslands where the soil has been deliberately disturbed and the top-soil buried, killing the fungi and providing a bacterial dominant soil. His techniques have a high probability of failure for woodlands. At a public meeting in Bairnsdale he stated that he would develop the grasslands and then "bung in the trees". This is clearly an overly simplistic viewpoint and demonstrates a lack of understanding of the environment in which he is proposing to work.
    - Bacterial dominant = weeds; not trees.

- Weeds & Bio-security
    - Kalbar's land has African Love Grass [ALG] (***Slide 25***)
        - ALG is an extremely invasive and difficult to control. Local experience (by careful operators) has shown the ALG "selective" herbicide at the label rates can kill everything for up to 3 years. General herbicides like glyphosate also kill everything (but not the ALG seeds!), thus providing the ALG seedlings with a competitor- free environment in which to germinate and grow.
        - ALG seeds are active for many years. One producer we know (not in Glenaladale) is currently spending over $50,000 per year controlling ALG on his property. He has quarantined the affected part of his property; all vehicles are thoroughly washed before moving onto the rest of the farm.
        - There are no signs that Kalbar has seriously attempted to control its ALG; in fact they slashed it, which is known to spread it and is NOT recommended.
    - Our farm has been tested to be free from Johnnes Disease, Vibriosis, and Pestivirus. Thyleria and Footrot are also diseases of concern. These can all be spread by contaminated soil moving between properties.
    - Australia is very susceptible to COVID 19 as we have low infection & vaccination rates. Similarly our herds & flocks are susceptible to diseases like Vibriosis, Thyleria, Pestivirus and Johnnes disease. Bio-security is vital for long term agricultural business viability.
    - Kalbar has been travelling between properties (one known to be contaminated with Footrot) with no bio-security arrangements.
    - Despite saying that no chemical will be used, Kalbar proposes to use a range of chemicals. These include flocculants, dust suppressors, stabilisers, spray/hydro-mulching substances...
    - Farmers have to use APVMA registered chemicals with <u>labelled</u> Withholding Periods (WHP) and Export Slaughter Intervals (ESIs) to ensure product integrity and avoid contamination. Are Kalbar's chemicals registered with APVMA? Do they have grazing WHPs and ESIs? How will we know that we will not end up with contaminated food?
    - The chemical contamination from cotton trash being used as stockfeed during a drought years ago was a trigger event of national regulatory change.
    - The proposed level of soil saturation with flocculants is unprecedented.
    - What will be the long-term impacts on soil, vegetation, water & groundwater? We know flocculants are toxic to aquatic life – refer to the Safety Data Sheet.
    - How will flocculants breakdown under anaerobic conditions? See Dr Jason-Smith's report.
    - There is real explosion risk of chemicals. The local and surrounding CFA units not have the gas tight suits required. The nearest is around 100km away.

- Permanent piping is to be installed under the mine floor. Water coming out of those pipes will be highly contaminated as it has seeped through the tailings.
    - Impacts on the aquifers – recharge/discharge?
    - Who is going to pump the contaminated water away from the river when the company folds/goes away?
    - What happens when the pipes eventually block up?
- "No intent or requirement to reinstate to the original soil type" (Loch)
    - Different soils = different plants. It's not possible to get the original genotypes growing in different soils.
    - "Analogues" are not the same.
- Loch says our soils have poor water holding capacity. Yet Dr Drake's comment from the Expert Witness Report suggests that the saturated sub soils may provide water storage for the plants.
    - Locals understand that a wet winter (saturating the subsoil) sets up an early spring, as the plants have access to plenty of water for growth.
- No fertility targets or production targets have been set, nor have detailed soil analyses been performed.
    - Total phosphorus test as used by Loch is useless and inappropriate.
    - Fertility target to be set from "reference sites". Who chooses the sites?
    - "Topsoil" as used by Kalbar refers to top 300mm of soil. This is inaccurate.
        - Topsoil is classified by the soil horizons. No bulldozer operator can "shave" the top 50mm of soil accurately without mixing it with the lower fertility subsoil.
- How is successful rehabilitation going to be assessed?
    - Laser grading is world's best practice under ideal conditions with agricultural production as the end point. It still takes up to 7 years before the country recovers and returns to previous production.
    - Other experiences with re-topsoiling shows it is unlikely to succeed.
    - Stockpiled "topsoil" will become anaerobic. This results in changes to the soil biology.
    - Kalbar's paperwork uses phrases "appears" or "resembles" the original condition BUT
        - Although a plastic cow resembles a cow, you won't get any milk from it.
    - <u>Farming & soils are about function NOT appearance</u>. When we asked the Mines Inspector how a parcel of land is assessed, we were horrified to hear the reply "if it looks okay." This is untenable and simply will not work for land to be returned to agriculture.
- Kalbar appears to be holding off on details until they are no longer enforceable
    - Alternative rehabilitation goals that are not in the EES/Workplan are not enforceable or transferrable in the event of mine ownership change (conversation with Steve Butler, Gippsland Mines Inspector)
    - What will be the criteria for acceptance of rehabilitation?

Agriculture

- Kalbar presents a 1950's static viewpoint of agriculture which bears no resemblance to the real situation.
- Grazing management is the basis of soil health, i.e. do not exclude livestock from land
    - Grasslands are an ecosystem; plants evolved with grazing animals (fire risk)
- Agriculture is dynamic. Practices and enterprises change depending on opportunities, climate, circumstance, technology ... (***Slides 26, 27 and 28*** are some of the enterprises we have operated on our farm). Agri-tech is a fast developing industry.
- Agriculture has been consistently denigrated and downgraded by the proponent throughout the EES. Grazing is misunderstood and undervalued.
    - Inaccurate soils not suitable for agriculture statement (***Slide 29***)
    - There are currently 167ha under irrigation @ Hillside (***Slides 29-31***), 123 ha@Cowells Ln, 27ha @ NW end. A further 480ha has been purchased at Hillside. There is clear and tangible evidence that areas of the hill country is currently under irrigation, with further expansion happening.
    - The stockpile of pipes is for the irrigation development of the additional 480ha. This is the development of land over 3km from the river. The Glenaladale Plateau is less than 500m from the river. (***Slide 31***)
    - There were 33 trucks in this producer's depot when the photo was taken. (***Slide 31***)
    - Kalbar's Agriculture "evaluation" was undertaken during a severe drought (the longest and driest in Victoria's recorded history) that followed on the heels of the Mt Ray Bushfire. They were not seriously considered in the EES.
    - Kalbar compares agriculture's PROFIT with mining's TURNOVER. Profit is after all expenses are paid. Turnover is before any expenses are paid. This is not a valid comparison. There is no evidence that the proposal will be profitable.
    - MLA Sustainability Update 2021 "Our industry..." (***Slide 32***). Farmers are stewards of the landscape. Farmers are effectively applied ecologists; they manage the landscape (generally grasslands) to sustain it, maintain environmental targets and for future generations.
        - "Agriculture was Victoria's only major land use that was actively revegetating the landscape". Statement from the Victorian Farmers Federation (VFF) submission to the Parliamentary Inquiry into Ecosystem decline in Victoria.

- Animal Welfare issues are a huge risk to the agricultural industry (***Slide 33***)
    - Contaminated food (dust) and water (surface flows and seepage into groundwater)
    - Health issues will eventuate (worn teeth, eye/feet issues from dust/soils and contaminated wool and meat from dust/soils/water). The EES used an invalid study stating that coal dust doesn't affect palatability:
        - Coal dust is not equivalent to sand
        - Study examined palatability, but didn't measure weight gain, long term fertility, animal lifespan … These are all critical factors in an animal breeding operation.
    - Noise & light – animals MAY adapt (who has actively measured this across a range of criteria?), but what is the production cost while this adaptation is occurring (especially for livestock traders whose animals are changed frequently)?
    - Dark cutting meat will be a significant and unconsidered issue. Meat and Livestock Australia (MLA) research has shown that noise and stress trigger stress hormones which alter the pH of the meat. This results in the meat changing colour (becomes dark, and can be black) and is unsaleable.
    - Water security (groundwater fed water supplies) (***Slide 34***: Depth to groundwater from Visualising Victoria's Groundwater website VVG.ORG.AU, and ***Slide 35***: aerial view during the drought)
- $1,404/ha average turnover in Gippsland (Livestock Farm Monitor Project 2019-2020) ~$2.25m over project area.
- Agriculture is a long term and sustainable industry in our area (170 years already)
- Our farm practices Regenerative Agriculture, and has come out of the worst drought in Victoria's history with no debt.
- Agriculture within the project areas employs several families, with an average of 4.2 flow-on jobs. This is a substantial and significant local industry.
- Virtually all turnover is spent locally.
- Agriculture must comply with numerous Quality Assurance Schemes:
    - LPA (animal welfare, chemical use, bio-security, feed)
    - EU (traceability, HGPs, animal welfare)
    - MSA (growth, animal handling)
    - Grass-fed (diet)
    - All Quality Assurance Schemes have stringent requirements and are audited.
        - One personal example: We were required to produce information and documentation for an Australian Quarantine Inspection Service (AQIS) inspector who was following up on a cow (she had stitches). All the requisite information was provided from our meticulous records (details of the drug used, practitioner, dose, date applied, and WHP etc.) The inspector was most impressed.

        - All animals are lifetime traceable National Livestock Identification Scheme (NLIS) – paddock to plate.
        - Gippsland Beef is known, respected and advertised. ***Slide 28*** shows the butcher's shop at Chadstone (Melbourne) advertising Gippsland Beef. Many restaurants and cafes also proudly display Gippsland Beef on their menus.
    - Apiary – the impact of dust on bees has not been considered (***Slide 28***).
        - Bees are essential for pollination, especially brassicas
        - Grey gums @ Glenaladale are a source of nectar for commercial apiarists when nothing else is in flower. Landholders frequently allow apiarists to locate hives (100 at a time) on their properties.
- No Mine Option (***Slide 36***)
    - This is a requirement in the Scoping, but it hasn't been seriously considered.
    - There has been no discussion of opportunity costs & emerging industries:
        - Carbon farming (compatible with existing enterprises)
        - Agri-solar (compatible with existing enterprises)
        - Irrigated hill country (horticulture or beef/lamb...)
        - Potential for residential subdivision
    - Kalbar ignores the fact that water is a critical limiting resource for food production, and that the water would be more productively used in the existing agricultural/horticultural industries. These industries are long-term, sustainable, would generate more jobs, have virtually no risks and don't massively disrupt the social, financial and ecological environments.
    - Implementation of the open cut mine would prevent the use of the water to generate an additional 600 direct jobs compared with the mine's 200 jobs.
    - The mine would result in a net loss of employment opportunities.
    - Dust – Venturi effect
    - Noise is problematic and many issues relating to it have not been considered. Farmers rely on being able to hear their animals, e.g. calves on wrong side of fence, and predators; animals must also be able to hear predators, their mates and their young.
    - Employment
        - Currently approx. 1,500 direct employees on the Mitchell River flats
        - Approximately 6,300 indirect = 7,800 employed
        - 600 new jobs if horticulture industry had access to the 3 GL of water
        - 2,500 new indirect jobs = 3,100 **new jobs**
        - Project will create a **NET LOSS of employment opportunities of 2,700 jobs** even if nothing goes wrong
        - Project risks the loss of the current 7,800 jobs as well (10,500 total) when it goes wrong

- Local employers are struggling to find employees, especially in the health & hospitality industries.

Climate

- Rainfall in the area is highly variable between weather monitoring stations (***Slide 37***), with the Fingerboards known by locals to have higher rainfall than surrounding areas (averages an additional 125mm).
    - Lindenow data was used by Kalbar; this was stopped being recorded in 2015)
    - Mitchell River @ Glenaladale station would have been more relevant
- Vince from SRW – storms at the Fingerboards can alter water restrictions by 2 levels over summer – will become unavailable due to the mine contact dams.
- We live in a 350mm rainfall zone with **random** East Coast Lows (ECLs) scattered throughout the year (***Slide 38***: yellow=months with >100mm [double average], green=months with ~200mm rain or greater [four times average])
    - Droughts occur when we don't get any ECLs
    - Floods & saturated dispersive soil occur when we get ECLs close together. This means no heavy machinery use, NO VIBRATION, living on the skin of a custard (Slides 39 & 40)
    - The situation is worse when get <u>consecutive months with ECLs</u>; no heavy machinery use for up to 6 months, or until ground dries sufficiently.
    - There have been no major ECLs (>200mm rainfall) since the proponent has been in the area (2014). In June 2007 (271.8mm) a house floated down the river. There have been no consecutive months with ECLs since 2011 – a reduced number of ordinary ECLs compared with pre 2014.
    - **The proponent has no handle on the local climate; what it does and what it means for land management.**
- Climate change has not been properly considered and its risks evaluated (***Slides 41 & 42***)
    - Less winter rainfall = fewer opportunities for winter fill
    - Drier, less humid and high winds = more dust
    - More extreme rainfall events = dams overtopping, saturated soils, erosion ...
    - 2019 is Victoria's driest year on record; the last 3 years have been the state's driest on record (Graham Anderson – AgVic (ex CSIRO/BoM) presentation 19/02/2020 @ Lakes Entrance)
- Wind is very problematic. The project area is a known windy location. We have nasty and dangerous SW winds as well as N winds, both of which can cause significant damage. (***Slide 43***) = Demolished farm shed; insurance company wrote it off.
    - Trying to keep clothes on the line in the wind, particularly sheets and small items is problematic. We've searched for and purchased a number of different **strong** pegs designed for high wind (including marine pegs), and still have difficulties with keeping clothes on the line on windy days.

- Kalbar's wind monitor had issues with breakdowns and lack of filters, creating severe shortfalls in data, especially during summer and the equinoctial gales. From the period January – June, there was only two weeks of monitoring in April.
- The Balmoral community was told (prior to approval) that operations would stop on windy days. Then after approval the mine operator stated it would cost the community $70,000 a day for the mine to not operate on windy days.
- Monitor location problems:
    - Non-representative site on the edge of project area. The EES incorrectly stated it was in the centre of the project. (***Slide 44***)
    - It was positioned in a basin behind shelter belts, which resulted in the production of meaningless data (***Slide 45-47***)
    - Wind turbine comparison (***Slides 48- 49***)
        - Wind turbines need the same laminar flow conditions as wind monitors, i.e. no turbulence from obstacles
        - Wind turbines should be located >10m above any obstacles within 150m of the turbine. This means the monitor should have been at least 10m higher than any trees on the surrounding ridges & hills. The shelter belt is less than 100m from the monitor location.
    - Building industry comparison - Wind (***Slides 50-52***)
        - The building industry has a quick method of determining the rated wind loading for a location.
        - The project is in Region A.
        - The monitor location would be Terrain Category (TC) 2.5 or 3 – we'll work on 2.5.
        - The location would be fully shielded (FS) by the tree plantation.
        - The topography would be T1 or T0.
        - This gives a wind load rating of **N1.**
        - When the mine is in operation:
            - The exposed and disturbed soil would be in Terrain Category 2 (as everything would be levelled)
            - There would be no shielding (all the vegetation would be bulldozed)
            - Near the edges of the project the topography would be equivalent to T3
            - This gives a wind load rating of **N4**
        - ***Slide 53*** compares the Gust Speeds of the wind load ratings
        - **N1 is 58% of the speed of N4 (nearly half)**
        - The energy in the wind is proportional to the square of its speed, i.e. double the speed = four times the energy.

Biodiversity/Ecology

(***Slide 54***: 360 degree video https://www.youtube.com/watch?v=ia9R5xkIcyA

This video contains 20 second segments from a number of different sites on our farm within, or very near, the project area:

- Highest (and most southerly) point on the farm, which provides an overview of the area to be cleared. All of the visible bush will be cleared. The grazing area comprises a very diverse mixture of native grasses (not 2-3 species as stated by Organ). Following the substantial rains in February 2020 our neighbour (who practices high input farming) texted that he couldn't believe the quantity of feed we had (the native grasses respond very quickly to rain – especially following a drought). Preserving and regenerating the native grasses is a component of our strategy for managing drought situations.
- Aboriginal camp-site. This extremely sheltered side gully from Spring Valley is out of the adabatic and katabatic winds which blow up and down the main valley. It is very close to permanent water (the spring in Spring Valley), teems with game, and has an excellent viewpoint just above. Local Gunaikurnai people believe this would have been used as a traditional site. It is right beside the project area.
- The Fingerboards was used as a meeting place for different tribal groups as it is on the boundary of several group's areas.
- Viewpoint above Spring Valley. While camped in the site mentioned above, lookouts would have been sent here to look for smoke or other signs of other tribes (being near the edge of their area). The site offers excellent views for many kilometres from the South-East around to the North and the West.
- Marker tree. This ancient red-box tree is many hundreds of years old. Red box trees are very slow growing. It was measured by an arborist as being 1.27m in diameter (4m in circumference) at chest height. High in the tree are some fused limbs. The local Gunaikurnai people believe this tree is a traditional marker tree. It is also an excellent habitat tree, with many hollows of differing sizes. Looking around you can see the glade of red box trees, and more old-growth forest on the opposite side of the valley. It is highly likely that Greater Gliders would be found in this area.
- Further up Spring Valley. This area of old-growth forest will be flooded by one of the 20 mine contact water dams. It is a beautiful area with at least 3 different EVCs. In total approximately 90 ha of remnant native vegetation will be flooded by Kalbar's dams.
- Plateau above Spring Valley. This area of grassy woodland will be destroyed. It contains many old red-box trees, including a significant number of the rare narrow-leafed red-box (Eucalyptus polyanthemos longior). The Victorian Biodiversity Atlas only lists 66 specimens of the narrow-leafed red-box within all of Victoria. We estimate there are at least 20 (and probably more) unlisted specimens on our property.

        - Spring-fed dam. This dam has been the only source of water on the farm during several droughts and allows us to continue operating during droughts. Without being able to rely on this dam we would have to sell all our livestock in drought times. It also provides the local wildlife with water. There is plenty of cover near the dam for fauna of all sizes. Mr Casey believes he detected the Giant Burrowing Frog (GBF) at this dam, but the sound was faint and in his words "he couldn't take it to court". The confirmed detection of GBFs on nearby properties, in combination with the recordings, provides a clear indication however that GBFs are highly likely to be present.

- Biodiversity is much richer than represented in the reports (***Slide 55***)
- "No intent or requirement to reinstate the original soil type", Loch's Witness Statement, page 18. (***Slide 56***)
    - Local plant ecotypes have evolved for the local soil conditions. If the soil is significantly altered (as proposed) then the local flora ecotypes will be unable to grow. This is not a successful rehabilitation strategy.
- It is well known that the biodiversity is richer at the boundaries of different ecosystems. The project area has boundaries of several ecosystems:
    - Lowland forest
    - Red-gum plains
    - Mitchell riparian
    - Perry Chain of Ponds/GDEs
- There is no discussion in the reports about migratory species such as Rainbow Bee Eaters (come through every summer), or White Bellied Sea Eagles which nest in the bluffs adjoining the project area. ***Slide 57*** shows a breeding pair and juvenile white bellied sea eagles flying over our property.
- There is no discussion in the EES about the migration routes between the Alps and the coast. Many species spend the summer in the alps and then migrate down the bush corridors to the coastal areas for winter. The Mitchell and Perry systems are crucial migratory routes.
- There is no discussion in the EES about the project area containing the main linkages between the Mitchell River and the Perry River catchments. Our property has wildlife corridors linking the two. Destruction of the linkage between these two systems would isolate animals (especially small animals) preventing diversification of genetics. This enforced in-breeding is proving to be a significant cause of species decline.
- Landholders have a sense of stewardship; we want to protect the land and pass it on in better shape. It is a well loved landscape.
- Much of the bush on 2705 Bairnsdale-Dargo Rd is old-growth, clearly demonstrated by a 1949 aerial photo (***Slide 58***). Note the WW2 airstrip.

- Slides of biodiversity (***Slides 59 – 63***)
    - Within the project area, Treetec undertook a brief study on our property (yellow writing on the map), and the local Gippsland Environment Group has also looked at flora on and beside our farm (red writing on the map). Species they found are shown on ***Slide 64***. These include:
        - Narrow-leafed Red Box (rare)
        - Eastern bitter cress (vulnerable)
        - Wavy swamp wallaby grass (vulnerable)
        - Slender tick trefoil (poorly known)
- No meaningful discussion took place in the EES about the impact of the 2014 Mt Ray/Boundary Track bushfires; or the drought. Both these major events have had a destructive impact on the local environment.
- 2014 Bushfires devastated the area – 6,500ha, approx 500km of fencing, hundreds of livestock & 3 homes burned. (***Slide 65*** = map; ***Slide 66*** = damage). The majority of the project area was burned. Studies near Bruthen indicate that ecosystems burned there had still not recovered after 5 years.
- Any ecologist should understand state and transition succession, i.e. once disturbed the environment will undergo a number of transitory states of varying duration before settling on a relatively stable state. Our environment is still transitioning and has not yet settled. State & Transition theory says that we can't predict the final state; but we have to acknowledge that we are in transition. Nothing in the EES mentions that the project area is unlikely to have stabilised into a final state and is still transitioning.
- In TD 591 Organ suggests that there are "areas under investigation" to avoid clearing. Mapping of those sites (***Slide 67***) shows that 3 are at the sites of proposed water contact dams and the other is Perry Gully, where the tailings are to be dumped. Clearly none of the sites can be avoided.
- The EES has a desktop study of 2705 Bairnsdale-Dargo Rd (our farm). It contains a map (***Slide 68***) purporting to identify vegetation which will be impacted, including large trees. There are 8 trees identified in the purple circle. The imagery used is poor quality, which may explain the inaccurate results. Using our own farm mapping system and free publicly available imagery (***Slide 69***) it's possible to identify over 20 large trees in the same area. The estimate of impact is likely to be out by a factor of 3.
- ***Slides 70–72*** are aerial images of the areas of remnant native vegetation to be destroyed.
- It is not just the mining that will destroy flora & fauna. There will be:
    - Flooding by the 20 dams;
    - All the associated construction works for the dams, etc; and
    - Traffic (Consequence "minimal" – what about Giant Burrowing Frogs?)
- "Robbing Peter to pay Paul"
    - The 200ha of grassy woodland will turn into Manuka (Kunzea Ericoides) & ALG without continuous and long term expensive management.
    - Kalbar stated they would turn the area over to a local volunteer organisation. There is a clear expectation that "volunteers" will subsidise Kalbar's obligations.

- A number of species were not sought as “they were unlikely to occur in the project area”, including the Giant Burrowing Frog. The same phrase was used for White Bellied Sea Eagles in the EPBC application. Why weren’t the locals consulted? There have been several sightings of quolls & GBFs @ the Fingerboards. What could be found if actually looked for? There are only 3 current sites where the New Holland Mouse is found in Victoria. One is at Providence Ponds on the Perry River, less than 10km from the project area, with a continuous bushland corridor linking the project area and Providence Ponds. This species was not sought as it was “unlikely to occur in the project area”. It would certainly not be found if it wasn’t looked for.
- The Native Vegetation Clearance guidelines require evidence that off-sets have been acquired prior to clearing. A number of off-sets may become unavailable in the future. Staging off-sets is an unacceptable risk.

Complexity

- Under the Cynevin decision framework – there are 4 quadrants. It’s easy for specialists to not notice when they have moved from Complicated (where specialists generally agree with each other) to Complex (where specialists disagree, and the only option is extensive trialling). This project is complex – specialists do not agree. The interactions of soils, groundwater, surface water, terrain, GDEs, rehabilitation issues, unpredictable weather and highly susceptible neighbouring industries mean that there are NO straightforward solutions that can be said to be assured. Components need to be field tested, and the whole needs to be tested as a **system** before there can be any credibility to Kalbar’s proposal. None of the components of the proposal have been adequately tested (which could have occurred in the 4 year preparation of the EES). The system has not been tested; Kalbar’s experts appear confused as to how it all fits together.
- The proposed project is a highly complex and complicated operation. Kalbar has proven it’s incapable of even organizing land access prior to bringing in their drilling contractors, or providing adequate notice of intent to access. They do not have the management capability to operate a complex project. The consequences of them not managing would be disastrous.
- The proposal includes a complex system of dams reliant on pumping to transfer water around. In the event of long-term shutdown (care and maintenance), or unexpected shut-downs, the system would not be safe.
- The proponent underestimated the water requirements of the project by 50%, has failed to comply with contracts with landholders, failed to successfully engage stakeholders and community, and made an error of $157 million dollars in its reporting to ASIC. They have failed in their technical skills, communication skills and financial management skills. They have not demonstrated the ability to competently manage a complex project.

Consultation/Compliance/Corporate Risk

- The proponent cannot be divorced from the project (corporate risk).
- We are a community
    - Children are never left alone at the bus stop
    - CFA
- "Community Consultation" has not been effective. The vast majority of the community opposes the mine and distrusts the proponent.
- Those in opposition to the mine include people of a varied age range, from all walks of life, localities (locals, state, interstate and international), diverse education levels, with a huge range of professions and varied backgrounds who have seriously considered the risks, issues and consequences.

"Mitigation Measures"

- Some are nonsensical (keep windows closed, provision of bottled water – how do you shower with bottled water?) (**Slide 73**)
- Some are totally unenforceable. Note that the words "if practicable" occur 32 times in the Risk Mitigation Register.
- Consequences and Likelihoods are fanciful and downplayed in both areas
    - How can it be that consequences and likelihoods are stated when dam failure modelling has not been undertaken (or in case of "freshwater dam" the modelling is invalid)? The Risk Mitigation Register has rankings of both likelihood and impact for dam failure (***Slide 75***) – both ratings are fanciful.
    - While the likelihood of a dam failing in a year may be "rare" – the probability of a dam failure when there are 20 dams becomes highly significant (20 x), and even more so when a 20 year time-frame is considered. Kalbar has not considered the basic maths of the cumulative probabilities of events.
- Some mitigation measures are ineffective. For example, the Water Contact Dams (***Slide 74***) are upstream of the mined areas in a number of sites, including the end of Carey's Lane where mine contact water would flow directly into the Mitchell River. It is not acceptable that ineffective mitigation measures are proposed for impacts with dire consequences.
- Some "mitigation" measures rely on targets "to be agreed" between Kalbar and the landholder. Enforceability? What if there is a difference of opinion? There is a built-in distinct power imbalance in this situation.
- A discussion was held with Steve Butler (Mines Inspector, Gippsland) in which he explained that the EES sets the standard for rehabilitation for the project.
    - Should a landowner negotiate an alternative rehabilitation target, that arrangement is deemed to be a commercial contract between the two parties.
    - It is not tied to the ownership of the mine, and is not enforced by ERR.
    - In effect, any alternative rehabilitation target would be null and void following a change of ownership of the mine. Mineral sands mines change ownership on average about every 3 ½ years. No additional compensation would be payable under the MRSDA.
    - Kalbar keeps saying that targets will be "negotiated with landholders."
- Cultural Heritage

    - Approximately 1/3rd of the project area (and a significant portion of the expanded mining licence area) has a cultural heritage overlay (***Slide 76***).
    - The proponent suggests they will undertake studies prior to any works. This simply means we will have a list of exactly what we have lost. It will not prevent the loss, or alter Kalbar's actions in any way.
- The EES is full of Weasel Words & Motherhood Statements. There are so many statements such as "may", "could", "might", "if practicable", "where practicable" ....; there is no commitment and these words/intentions are not enforceable. Likewise the numerous "will research" and "further investigation." These are all signs the EES is not complete.
- The proposed further investigations should have been undertaken in the 4 years leading up to publication of the EES, not in some mythical timeframe following approval. What if the "further investigation" finds there isn't a "practicable" method of stabilising the dispersive soils?
- Many of the "mitigation" measures rely on community and/or stakeholder consultation. Many words have been written about the consultation process, how it will be undertaken ... There have been many versions of the Community "consultation" plan.
    - There has been only one public "meeting" held in the last 18 months - by Zoom and orchestrated to limit difficult questions and avoid answering them.
    - Covid-19 has been used as a ploy to avoid the public. Kalbar's office has remained closed for many months, even though it has been permitted to be open. This has limited the public's opportunity to gain information and ask questions.
- ERR has a very thick file of complaints about Kalbar's failed community consultation.
- The IAC has heard from many "sensitive receptors" (= people) who have not heard from the proponent.
    - To this day, Kalbar has not provided us (as directly impacted stakeholders) with ANY information as to what they intend to do with our property. All their correspondence to us has been limited to access and purchase.
- Kalbar's approach to community consultation started badly at the public meeting at Mossiface where we were told that "There's nothing at Glenaladale but some sheep, a few burnt trees and a couple of lettuce growers."
- Our first "personal" encounters with Kalbar as directly impacted stakeholders are prime examples of a lack of preparation and notification, and we believe were attempts to ambush us by catching us unawares and unprepared:
    - A phone call on a Sunday afternoon from Kalbar's then CEO Rob Bishop that "We've got the drill rigs in the area and we want to start on your place at 9:00 in the morning, is that OK."
    - For access, the MRSDA requires an agreement in place with a minimum of 7 days notice. We believe this was an attempt to breach the MRSDA; either that or a total lack of knowledge of the MRSDA. Neither is acceptable.

- Our second “personal” contact was from Carolyn Balint: “I’m in Bairnsdale could you come in tomorrow morning for a meeting.” The expectation was that we would drop everything to come at Kalbar’s beck and call. Apparently she was also available the next two days; we weren’t as we had plans in place. Farmers are busy people who plan their work.
- Marketing 4 Ps (price, place, product, position) versus Project 7 Ps (Prior Preparation & Planning Prevent Piss Poor Performance)
    - Lack of preparation and planning = performance indicator
    - Lack of respect for landholders, stakeholders & community
        - Trespass on a neighbour’s property (this incident involved the Mines Inspector)
    - Indicator of performance
    - Damage to the property (***Slides 77, 78 and 79***)
- “Adaptive Management” is unacceptable, as Kalbar have proven on many occasions. For example:
    - Kalbar gained access to the property last October even though it was too wet, and promptly became bogged.
    - Upon leaving they said they would be back in December.
    - They insisted on coming back a week later (even though it was still too wet) and became bogged. Under their adaptive management regime, they then went on to damage a further 13 sites - making a total of 15 sites (***Slide 80***) - before completing their drilling program. “Adaptive Management” seems to mean do what is expedient regardless of the damage.
- In April 2017 Kalbar requested access for EES studies. We received the letter on 01/05/2017 for work due to commence on the 03/05/2017. Kalbar’s own Land Access Policy stated they would provide a minimum of 14 days notice. We wrote to Kalbar describing the inadequacies of their approach. (***Slide 81***)
- In January 2018 Kalbar requested access for exploration purposes. (***Slide 82***)
    - Their letter stated a “Mining Reserve” had been declared. We could find no definition of a “Mining Reserve” in the MRSDA, so contacted ERR by email requesting clarification of this term and the date of said declaration.
    - The letter stated that should we fail to respond within 3 weeks, the Mining Warden would be contacted.
    - The letter also stated there would be individual meetings with landowners in the coming months. In our case this has not eventuated. There has been no written communication (as per our directive) from the proponent as to what Kalbar intends to do to our food production land.
- We were concerned that the declaration of a “Mining Reserve” may have compromised our few rights under the MRSDA. As ERR had not answered our question we requested an extension of Kalbar’s arbitrary 3 week deadline.
    - Kalbar were informed (wrongly) by ERR they had answered our question; EER responded, but did not answer the questions.
    - Our request for an extension of time was denied (***Slide 83***), even though ERR had not actually answered our question.

    - Written communication from Kalbar indicated the proposed drilling works would be based on a lightweight drill-rig mounted on a Toyota Landcruiser. (***Slide 84***) Imagine our shock in 2020 that this vehicle had morphed into a 20 tonne truck with two tracked support vehicles.
- One week into Kalbar's own arbitrary 3 week deadline period we received a phone call from the Mining Warden's office that Kalbar had initiated a dispute. When we suggested this was impossible as we were still within their arbitrary deadline supplied in writing, WE had to provide the letter from Kalbar confirming this (***Slide 85***). The onus of proof was on US.
    - As the Mining Warden dismissed Kalbar's application, after the three weeks were up, Kalbar initiated another dispute with the Mining Warden.
- We requested a detailed written proposal of what works were going to be undertaken by Kalbar. In lieu of this, we were taken to the Mining Warden and our position was supported.
- In February (25/02/2019) Kalbar made an "unsolicited, unconditional and non-binding" offer to purchase one title of our land. (***Slide 86***) It seemed to us that the only correct term used was unsolicited. The "unconditional" offer had a total of 11 conditions. It was ignored as junk mail.
- In April 2020 we received a letter from Kalbar's legal representatives stating their intention to take us to VCAT if we failed to sell our land (***Slide 87***), using Section 89 (1) of the MRSDA as the basis.
    - The relevant clause of the MRSDA refers to the breakdown of COMPENSATION negotiations, not unsolicited purchase offers.
    - NO mention of the word compensation had occurred in any correspondence to that point.
    - Kalbar still do not have a Mining Licence which would be a relevant licence for that action
    - In short, Kalbar had no grounds, justification or authority to threaten us with VCAT; we believe it was purely a bullying tactic. This is how Kalbar have attempted to "negotiate" with us. We also believe this is yet another indicator of how "negotiations" and "stakeholder engagement" will occur in the future. The only predictor of what will happen in the future is past performance.
- There was a two year gap in discussion for exploration access; then suddenly it became urgent again, with another VCAT "discussion". As discussed earlier, the map provided was inadequate (***Slide 6***).
- Kalbar's Environmental Protection Policy (Reviewed April 2018) (***Slide 89***)
    - "Wherever possible prevent, or otherwise minimise, mitigate and remediate any harmful effects of our operations on the environment"
- As stated earlier, Kalbar gained access for exploration drilling in October 2020. We employed a supervisor – at our own cost – in an effort to ensure compliance with the access arrangement by Kalbar.
    - The access arrangement required all holes to be filled in accordance with specific clauses of the guidelines. The first four holes were not so filled. Subsequent holes were filled properly, following our insistence. Kalbar's supervising geologist did not know the requirements of the guidelines under which he was operating.

    - The guidelines state the bentonite slurry is to be hand mixed, not mechanically mixed; it was mechanically mixed.
- The access agreement required Kalbar to provide data (drill log summaries & GPS coordinates) within 7 days of completion. We didn't receive the data until February 19th, following discussions regarding VCAT and Kalbar's breach of contract.
- Kalbar failed to follow the tracks outlined in their map.
- As discussed earlier, Kalbar damaged the crust at 15 sites. The mere passage of their 20 tonne drill rig also damaged the pasture everywhere it travelled. (***Slide 91***)
- We have struggling for the past 8 months to receive payment for damage to the land. (***Slides 88 & 90***)
    - Kalbar ignored the evidence of their expert Loch (dispersive subsoil becomes saturated), locals and landholder.
    - The ground in the access gateway was wobbling and making waves when walked on due to liquefaction of the subsoil caused by Kalbar's machinery's vibration.
- ***Slide 92*** shows the crust damage at one of the other sites.
- The original damage was caused in late October/early November. By late December (nearly 2 months later) the damage is still very clear. (***Slide 93***)
- The damage to the pasture was still very evident in February 2021 – 4 months later. ***Slide 94*** has two photos showing the same location. The first shows a coffee cup in the drill rig tracks; in the second, the bright yellow coffee cup is in the grass beside the tracks. In the undamaged area the grass is so thick and long that the cup is totally invisible.
- The damage is still clearly visible in June 2021 (***Slide 95***)
- Initially Kalbar offered to provide a contractor to smooth over the damaged land.
    - As mentioned previously we operate on soil that has a thin skin; once that skin is damaged it is extremely difficult to rebuild. The skin takes years (if not decades) to heal if untreated. Simply scraping some dirt over the damage is like putting a band-aid on a broken arm.
    - The bogging also destroyed the topsoil. Scraping topsoil from elsewhere nearby is simply extending the damage rather than repairing the damage.
    - The contractor suggested by Kalbar undertook rehabilitation works on our farm following the 2014 bushfires on behalf of DELWP to repair damage. The quality of work performed was abysmal. DELWP inspected and then had to engage an alternative contractor with superior skills and more specialised machinery to fix the contractor's mess. Given this experience, we declined to use Kalbar's contractor.
- Payment for the damage and the associated costs has therefore been made a pre-condition of any preliminaries to any future discussions via our legal representative.

We do not know what Kalbar has said about the status of negotiations with us. It is extraordinary that a document can be submitted as "evidence" without any form of verification and without the landholders concerned knowing the content of the document as it pertains to them. This appears to us to be a perversion of natural justice.

We request that Kalbar must not be permitted to table this document until each individual landholder can check what Kalbar has said about them. We applaud the IAC's and that of opposing parties' legal teams' reservation to table the document in its current format.

As a result of our personal experience of dealing with Kalbar we believe that:

- Kalbar has no respect for the landholders
- Kalbar has no respect for the community
- Consultation = threaten or treat with disdain
- Contracts appear to apply to other people. We are expected to comply with contracts (or be threatened with the Mining Warden and VCAT), but it appears that Kalbar doesn't feel obliged to honour its commitments (or in a timely manner).
- Compliance limits appear to be there to be pushed:
    - Trying to gain access without an access agreement or adequate notice;
    - Kalbar's ex CEO Victor Hugo wrote directly to us after the company was told in writing by our lawyer that all communication was to be through our legal representatives. It is accepted business practice that once legal representation is involved, then all communication is through that channel; and
    - The current CEO attempted to telephone us well after the company was instructed that all correspondence was to be in writing. This is also against usual business practice.

CONCLUSION

As an engineer I am appalled at the poor quality of the documentation, lack of data, lack of scientific rigour, lack of detail, making changes on the fly and the lack of commitment to specific goals.

Although this is a far from complete picture of the devastation that would be wrecked on our thriving agricultural industries and sensitive ecological area, we invite the panel to consider the landscape more than 10 years after closure:

- 200ha of African Love Grass & Manuka rather than Grassy Woodland – as there is no money for maintenance;
- Soil levels across the project area dropping by 43 cm from erosion, and looking like the barren and degraded landscape as currently and inaccurately described in the EES;
- River totally turbid (***Slide 11***);
- Vast tonnages of sediment being dumped in the Gippsland Lakes which would then become highly turbid
    - This could easily reach an ecological tipping point resulting in the ruination of tourism and recreational fishing industries
- Cost of vegetables going through the roof as the Lindenow Flats Horticultural Industry collapses;

- Loss of agricultural industries (beef, sheep and wool);
- Class actions against the Government as drinking water becomes contaminated for 27,000 households + businesses;
- Total loss of the local community; and
- Permanent loss of endangered and vulnerable habitat as well as the loss of rare and vulnerable flora and fauna.

Kalbar painted their fairy-tale, based on cherry-picked data, leaving out and glossing over embarrassing details (such as impacts on shallow aquifers …) and ignoring the complexity and inter-relationships of the ecology, landscape and current thriving, long-term and expanding industries.

Our picture is a realistic one based on our personal (and that of other locals') long-term and extensive knowledge of the area and just how badly the landscape reacts when disturbed.

The proposal and its proponent are unacceptable for the myriad of reasons outlined not just by us, but many, many other people. There are too many unacceptable, inherent and foreseeable risks with no appropriate or effective mitigating solutions.

The displayed EES is a flawed and not-fit-for-purpose document. The numerous attempts to rectify its inadequacy on the fly during the hearing further demonstrate the issues and the lack of care.

This mine proposal should be refused outright. There are simply no mitigations that can resolve all the predictable negative outcomes. In summary, as per ***Slide 96***:

THIS IS A MINE IN THE WRONG PLACE