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Dear Ms McNally

HUNTER THOROUGHBRED BREEDERS ASSOCIATION – SUBMISSION ON ANGLO AMERICAN DRAYTON SOUTH COAL PROJECT ENVIRONMENTAL IMPACT STATEMENT

The Hunter Thoroughbred Breeders Association (HTBA) objects to Anglo American's Drayton South Coal Project as assessed in its Environmental Impact Statement (EIS).

There is no public interest served by a project which:

- proposes an unacceptable "buffer" distance between the mine and international scale horse studs which is less than 1km in distance;
- does not demonstrate that it will have no adverse impacts on equine health;
- threatens the viability of the Coolmore and Darley studs and the Australian industry they underpin;
- threatens the ongoing viability of other, sustainable agricultural industries including viticulture and tourism in the Hunter Valley;
- does not demonstrate, to any reliable degree, that it will have no adverse impacts on equine health;
- cannot reliably demonstrate that it will deliver economic benefits to the extent claimed by Anglo American.

In summary, the proposal still does not deliver a project which is in the public interest.

Hunter Thoroughbred Breeders Association

The Hunter Thoroughbred Breeders Association represents over 150 industry participants including thoroughbred breeders and suppliers of support services. The Hunter Valley's Thoroughbred Breeding Industry is Australia's premier multi-billion dollar breeding industry, representing over half of all thoroughbreds produced in Australia. It is Australia's largest supplier and exporter of premium thoroughbreds and acknowledged as one of only three international centres of thoroughbred breeding excellence in the world. The industry contributes over \$2.6 billion to the NSW economy and is an important employer of hundreds of thousands Australians (directly and indirectly) throughout our value chain regionally, in NSW and across the nation. It also attracts important tourism to the Hunter Valley region and delivers a diverse economic base for regional Australia.

The industry in the Hunter Valley is vertically integrated and interconnected. The stallion farms form the nucleus around which a very sophisticated network of equine support industries (broodmare farms, veterinarians, equine transport, saddlers, farriers, feed merchants – to name a few) are based. We are the largest agricultural industry in the Hunter Valley, the largest agricultural employer and a significant



regional employer in our own right. We are the nursery of Australia's racing industry and support some 250,000 Australian jobs nation wide.

The industry is one of two Critical Industry Clusters (wine and equine) recognised by the NSW Government. Together these two clusters inject some \$5billion into the NSW economy every year, support 100,000 jobs and attract more than 3 million visitors annually to the Hunter region. Both industries are worthy of protection.

Drayton South EIS – Issues and Objections

The HTBA opposes Anglo American's second application for an open cut coal mine (and at the fifth iteration of its mine plan) on the same site that was rejected by the Planning Assessment Commission in its October 2014 determination.

We oppose this proposal for an open cut coal mining operation because it is clearly incompatible with international scale thoroughbred breeding enterprises. The fact that open cut coal mining is incompatible in close proximity to international scale thoroughbred breeding studs was established by 15 Independent Government experts including:

- Bickham Planning Assessment Commission Report (May 2010);
- Drayton South Coal Project (December 2013) – findings of the Planning Assessment Commission Review Report;
- Drayton South Advisory Report (December 2013) findings of the NSW Mining and Petroleum Gateway Panel; and
- Drayton South Coal Project – findings of the Planning Assessment Commission Determination Report (October 2014) refusing the project.

Further we oppose this application because the Drayton South coal mine described in the EIS:

- is for a project that **remains less than 1km** from the operations of key studs directly across the road from the proposed mine. This close proximity remains unacceptable;
- **fails to address the Secretary's Environmental Assessment Requirements** (SEARS) – including the specific requirements relating to Agriculture, Air Quality, Noise and Blasting, Visual, Water, Heritage, Social and Economic;
- is **deficient in its analysis of the economic impacts** of the proposed project. This second application continues to overstate the benefits and understate the costs of the proposal resulting in **misleading information and conclusions** relating to the net economic benefits to NSW;
- **ignores the impacts on the Hunter Valley's wine and equine Critical Industry Clusters** – in stark contradiction to the findings of 15 independent Government experts and the requirements of the SEARS;
- **is deficient in its assessment of the surface and ground water impacts** of this proposal. Significant concerns remain regarding the lack of clarity between the 'final void'; and 'spoil' water/salt balance assessments; misleading surface water assessments; lack of clarity and transparency with regard to mine plan implications for water management;
- **does not comply with the NSW Government's Aquifer Interference Policy.**
- **fails to provide a credible, detailed, accurate and up to date assessment of the likely operational noise impacts** of the development;
- **fails to adequately assess air quality impacts** and does not accurately present data, conclusions and recommendations made by its consultants;
- **is deficient, provides inadequate information and incorrectly** states that the Projects will not reduce the availability of productive agricultural land – which is patently untrue;
- **intends to clear 151 ha of critically endangered Grey Box Woodland and fails to provide appropriate biodiversity offsets;**
- **fails to address visual impact concerns** voiced by our industry and recognised by previous PACs. Preliminary expert advice suggests that the Proponent's claims that this proposed mine will have no



visual impacts are incorrect as there will be a range of direct and indirect impacts on the studs and the Golden Highway (including direct and indirect visual impacts and visual impacts from dust and blast fume plumes);

- **fails to assess the cultural heritage landscape** in accordance with the SEARs and NSW heritage assessment criteria;
- **fails to assess the impacts on Aboriginal heritage** – particularly with respect to the requirements of the Burra Charter and OEH guidelines and policy for values identification and assessment;
- **fails to provide transparent, independent analysis of the environmental impact of the proposal;**
- **fails to assess the cumulative environmental impacts as a result of this project;**
- **provides no new information, provides outdated information, and continues to present irrelevant, incorrect and misleading information on human and horse health.**

Detailed submissions on these issues are set out in the Attachment.

Development Application Based on False Premises

Anglo American's second Development Application and this EIS is based on false, baseless and unsupported premises.

Anglo American claims that this Development Application has been designed to address the reasons for the refusal by the PAC of their previous application. Contrary to their unsupported assertions Anglo American has made about this project:

- the mine footprint has NOT contracted to meet with requirements of both the previous review and Determination PAC;
- the "buffer" distance remains less than 1km from stud operations and DOES NOT protect the horse studs from the impacts of mining;
- this mine WILL impact on equine behaviour and health;
- this mine WILL impact on the viability of the operations at Coolmore and (Darley) Woodlands studs;
- this mine WILL impact on the viability of the thoroughbred, viticulture or tourism industries and WILL NOT deliver significant economic benefits to the local region and NSW; and
- DOES NOT deliver a project that is in the public interest.

The assertions made by Anglo American are NOT supported by scientific or objective evidence and DO NOT represent the findings of the previous PAC.

It is noteworthy that Anglo American had many opportunities to address the recommendations of the earlier PAC Review but chose either to attempt to discredit the PAC Panel and Gateway reports or strenuously contest that adherence to previous PAC recommendations relating to minimum setbacks. Instead Anglo American described the PAC suggestions as *"unnecessary and would render the project economically unviable"* (Secretary's Environmental Assessment Report, July 2014).

Anglo American consistently protested throughout the last process that a smaller mine plan would have a *"material impact on the project economics"*; would render the project *"financially and economically unviable"*; that the *"Redbank Pit is fundamental to the economic viability of the mine as a whole, and if this pit is removed it is likely that the project would not proceed"* (Secretary's Environmental Assessment Report, July 2014).

This is a serious and material matter that calls into question the credibility and veracity of the Proponent's claims either with respect to their previous statements or the claims that are made in this Application. It also calls into question the motivation behind this Application and raises the serious possibility of leaving a stranded asset and a rehabilitation liability legacy at both the Drayton mine and the proposed Drayton South mine for future generations and the taxpayers of NSW.



Despite the plethora of evidence provided in previous submissions and the findings, conclusions and recommendations of previous PACs and the NSW's Independent Gateway Panel, the assessment in the EIS manifestly disregards the impacts this project will have on Coolmore and Darley, the Hunter Valley's equine and wine Critical Industry Clusters and tourism. This displays an astonishing and intentional disregard for the business model that underpins these industries that has been repeatedly explained to the Proponent over many years.

Investors in our industry are highly internationally mobile. Perception is reality and the importance of clean air, water, soil quality and topography is paramount. Any threat to our environment is a threat to our reputation, performance and future viability. It is these very qualities that underpin our domestic and international success and are the fundamental reasons why the Hunter Valley is the epicenter of Australia's multi-billion dollar thoroughbred breeding industry and our racing industry's nursery.

It has been clearly explained, and documented by previous PACs and the 2013 Gateway Panel that the Thoroughbred Breeding Industry is highly vulnerable to threats to image and reputation. Coal mining in close proximity, in this case less than 1 km from the operations of our two major Studs, has been and continues to be strongly identified as such a threat and totally unacceptable.

In its December 2013 Report, the Review PAC made the very pertinent point that *"... it will be essential that any mine operator responsible for the site is willing and capable of acknowledging, understanding and responding to the importance and critically sensitive operations of the two studs."* (PAC Review, 2013 p28).

Anglo American has regularly demonstrated that it is not willing or capable of acknowledging or understanding the sensitivity of the studs to this mine plan. This demonstrates beyond a doubt that this mining operator and mine are completely incompatible land uses and neighbours for these significant equine operations.

It remains the case that this one mine is in the wrong place and threatens the future viability of the two largest studs in Australia and the world, and in turn the Hunter Valley's equine critical industry cluster. There is an overwhelming level of evidence to support the continued application of the precautionary principle that was invoked by the Determination PAC which underpinned the decision to refuse the previous application. It was also the principle applied by the Gateway Panels (both 2013 and 2015) and should be applied to recommend against this application.

The weight of evidence presented to and by the previous PACs and Gateway Panels overwhelming demonstrates that this project is not in the public interest. This new application and EIS provides no credible reason to assume that this circumstance has changed.

Gateway Panel Assessment

The NSW Gateway Panel found that this project failed five of the six BSAL criteria. Unlike the previous 2013 assessment, this time the Gateway Panel did not assess the impacts of the Project impacts on Critical Industry Clusters.

The fact that this significant mining project, in such close proximity to two of Australia's international scale studs that are the heart of the equine CIC, did not trigger a Critical Industry Cluster assessment by the Gateway Panel is not in keeping with the policy intention for the Gateway Panel evaluation, and devalues the integrity of the planning process.

In its 2013 report, the Gateway Panel found that:

"The potential impacts of the proposed mine on the Critical Industry Clusters are significant. ... it is the Panel's view that open-cut coal mining as proposed at Drayton South, and thoroughbred horse breeding



studs of the nature, scale and importance of Coolmore and Woodlands (Darley) are incompatible land uses that cannot coexist in close proximity.

It is noteworthy that in its 2015 report the Gateway Panel made reference to the 2014 findings:

“Given the significance of potential impacts and uncertainties with regard to mitigation, and the dearth of scientific literature concerning the potential impacts of open cut coal mining on nearby equine breeding enterprises, particularly with respect to environmental stressors such as noise, dust and vibration, the Gateway Panel concluded that the Precautionary Principle should be applied (MPGP, 2013).”

This process was intended to provide upfront scientific and independent advice to Government and protection to highly sensitive strategic agricultural land.

The Gateway Panel should be empowered to refuse applications so that strategic agricultural land is protected.

Lack of Community Consultation

For the record, the HTBA as a key stakeholder has not been consulted by Anglo American on this proposed mine plan in direct contravention of the SEARs consultation requirements for the Proponent to consult with community groups and affected landholders.

Anglo American’s absence of commitment to genuine consultation in the preparation of this EIS reflects a disregard of the need to seek and address the genuine concerns of community groups and affected landholders in the preparation of this EIS.

This does not bode well for the Proponent’s long term relationships with land owners in the Upper Hunter community. Nor does it engender the underlying good will required to support any social licence to operate.

Insufficient Exhibition Period

In our 2013 submission on Anglo American’s previous EIS, the HTBA was critical of the six week exhibition period provided to the community to respond to thousands of pages of highly complex and technical reports which the company had many months and years to prepare with the assistance of expert consultants.

We remain strongly of the view that an exhibition period of, in this case five weeks or 25 working days, is too short a timeframe to allow appropriate assessment by communities of highly complex and technical mining proposals. **This is a serious flaw in the planning process which is biased in favour of mining companies.** Individual landholders are not financially or technically equipped to properly evaluate and comment on highly complex assessments in such a short time frame.

The HTBA reserves the right to submit supplementary submissions on this matter.

Further the HTBA strongly recommends that a period of eight weeks should be instituted as the minimum period for the exhibition of EIS applications to allow individual landholders and communities time to assess and lodge submissions.

Yours sincerely



Dr Cameron Collins
President



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1. EIS DOES NOT ADDRESS PAC FINDINGS

Anglo American's Environmental Impact Assessment (EIS) is based on false and unsupported premises. Anglo American claims that this Development Application has been designed to address the reasons for the refusal by the PAC of their previous application. In particular Anglo American claims this project:

- footprint has been contracted to specifically meet with requirements of both the previous review and Determination PAC;
- doubles the buffer distance to protect the horse studs from the impacts of mining;
- will have no adverse impact on equine health;
- will have no impact on the viability of the operations at Coolmore or (Darley) Woodlands studs;
- will have no impact on the viability of the thoroughbred, viticulture or tourism industries whilst continuing to deliver significant economic benefits to the local region and NSW; and
- delivers a project that is in the public interest.

None of these claims are correct.

Review PAC Recommendations

The recommendations of the Review PAC in December 2013 were clear and unequivocal. Three Independent Planning Assessment Commissioners recommended that:

1. *The Coolmore and (Darley) Woodlands horse studs should be recognised as essential to the broader Equine Critical Industry Cluster and **given the highest level of protection from the impacts of mining. And***
2. *The mine plan for the site should not be approved.*

The PAC also found that

3. Any open cut mining contemplated on the site ***should be required to demonstrate that its impacts will not affect the viability of the Coolmore and (Darley) Woodlands horse studs.***
4. *If mining on any portion of the site is to proceed, a new mine plan would need to be developed to plan for extraction from a considerably reduced mining area. **As a minimum** the mine plan would need to be constrained to adopt the following physical restrictions:*
 - a) *Open cut mining must be setback behind the existing natural ridgelines;*
 - b) ***Considerable buffering to shield the studs from the mine is necessary*** and, having regard to the topography of the area, open cut mining must not be allowed to extend through the second ridge to the north of the Golden Highway

These physical constraints are put forward as minimum setbacks and any proposed mining area on the site would need to be subject to rigorous assessment to ensure compliance with recommendation 3 above.

5. *Any new mine plan for the site would need to be further assessed to ensure the visual, blasting, noise and dust impacts could be managed to an acceptable level at the neighbouring stud properties and should take into account worst case scenarios. Other impacts would also need to be carefully considered both in relation to any impacts to the horse studs and more broadly, particularly in relation to the long term water impacts and the final landform.*

The PAC also acknowledged that the recommended changes may prove either technically and/or financially unviable. **If the smaller footprint is found unviable, then the Commission considered that the project cannot proceed.**



Anglo American's EIS manifestly fails to address the PAC findings:

- It **does not demonstrate** that this mine plan will not affect the viability of the studs;
- It does not provide **considerable buffering to shield the studs from the mine**. This mine proposed mine **remains less than 1km from the studs operations**;
- It **does not provide the requisite environmental assurances** that the visual, blasting, noise and dust impacts will be managed to an acceptable level for neighbouring studs. Its past track record is at odds with its promises of reliable environmental management;
- It **completely ignores the thoroughbred breeding industry's business model** – one that is based on reputation and image - both of which are highly vulnerable to threats posed by mining in such close proximity.
- It **has not taken into account worst-case scenarios** – including in relation to long term water impacts and final landforms. The Determination PAC's comments with respect to Anglo American's record of rehabilitation on its existing Drayton North mine provides no confidence with respect to the management and rehabilitation prospects for Drayton South.

Determination PAC Refusal – October 2014

In its report dated October 2014 the Determination PAC refused the Anglo American open cut mine plan for Drayton South on the following grounds:

- 1. The project does not provide sufficient buffer to protect Coolmore and Darley from the impacts of mining as recommended in the PAC Review Report and the Gateway Panel Report.*
- 2. The project has not demonstrated that it will not adversely impact on equine health and the operations of the Coolmore and Darley horse studs.*
- 3. The approach of monitoring the response of thoroughbred horses to the mine's operation to address uncertainty is not acceptable because once the damage to the operations of the studs occurs, it is irreversible.*
- 4. The economic benefits of the project do not outweigh the risk of losing Coolmore and Darley and the potential demise of the equine industry in the area with flow-on impacts on the viticultural tourism industries.*
- 5. The project is not in the public interest.*

Each and every one of the reasons why the previous mine plan was refused remain valid today. They are compelling reasons why Anglo American's second application for an open cut mine at Drayton South should be rejected.



2. EIS DOES NOT SATISFY WITH THE SECRETARY'S ENVIRONMENTAL ASSESSMENT REQUIREMENTS

We submit that the EIS prepared by Anglo American in respect of this second application for an open cut coal mine at the Drayton South site does not comply with the Secretary's Environmental Assessment Requirements. Anglo American's EIS:

- Fails to adequately address the likely impacts of the development on the soils and land capability;
- Entirely ignores the likely impacts of the development on the Upper Hunter Equine and Viticulture Critical Industry Clusters, paying particular attention to the nearby Coolmore and Darley thoroughbred horse studs and the Hollydene Estate Winery and having regard to the DPI's requirements;
- Does not provide an adequate basis for assessing air quality impacts on humans and livestock and does not fully present the data, conclusions and recommendations of its consultants;
- Fails to provide a credible basis for assessing the likely operational noise impacts of the development;
- Fails to undertake a detailed assessment of the likely visual impacts of the development – particularly the impacts on surrounding private landholders and key vantage points in the public domain, paying particular attention to the impacts on the nearby thoroughbred breeding operations, Hollydene Estate Winery, private residences, tourists and road users;
- Fails to undertake an appropriate water assessment of the water balance over the life of the development (including post mining); the likely impacts of the development on the quantity and quality of existing surface and groundwater resources;
- Fails to comply with the NSW Aquifer Interference Policy;
- Fails to undertake a heritage assessment (both Aboriginal and Non-Aboriginal) that complies with appropriate heritage guidelines and charters. In addition the Proponent failed to undertake appropriate (and mandated) consultation with key stakeholders;
- Fails to undertake a detailed and appropriate assessment of the likely economic and social impacts of the development, by (amongst other things) completely ignoring the impacts of this Project on the operation and reputation of the Upper Hunter Equine and Viticulture Critical Industry Clusters and associated tourism.

These issues are not new. The Proponent failed to appropriately address these matters in their previous application, which was rejected, for an open cut coal mine on this site.

The Department should expect the highest level of assessment, transparency and disclosure of all relevant information, modelling and underlying assumptions. It should appropriately critique the veracity of information that it presented in support of Anglo American's second application.

In our experience the Proponent has been called on previously to address and rectify these omissions and present credible, transparent and scientific evidence to support its claims. It did not do so.

Given the significant omissions in this EIS and the fact that this EIS does not address the serious findings made by the PAC the Department should recommend that this application, like the one before it, be also refused, as it is manifestly contrary to the public interest.



3. EIS DOES NOT MEET GATEWAY CRITERIA

Gateway Panel Report 2015

The Gateway Panel issued a conditional certificate for the Drayton South Project on 2 April 2015. In issuing this certificate the Gateway Panel:

- found that the Project did not meet five of the BSAL criteria;
- did not assess the project under the critical industry cluster criteria – despite the Project being located in the middle of the equine CIC and less than 1km from critical equine and wine cluster operations.

In issuing this conditional certificate the Gateway Panel found that the project would have direct and significant impacts on the agricultural productivity of verified BASL within the Project Disturbance Area. In particular the Gateway Panel found the Project's application will have significant or potentially significant impacts in respect of 17 H(4) (a):

- (i) impacts on the land through surface area disturbance and subsidence,*
- (ii) impacts on soil fertility, effective rooting depth or soil drainage,*
- (iii) increases in land surface micro-relief, soil salinity, rock outcrop, slope and surface rockiness or significant changes to soil pH,*
- (v) fragmentation of agricultural land uses,*
- (vi) reduction in the area of biophysical strategic agricultural land.*

Critical Industry Clusters

It is important to note that despite the fact that this Project is less than 1km from equine and wine critical industry cluster operations, and despite the intent and spirit of Gateway Panel reviews, Gateway Panel Review of the impact of this Project on critical industry clusters was not undertaken due to a loop hole in the policy which does not trigger this analysis as there are no viticulture or equine operations within the Project's boundary.

This is inconsistent with other Government policy, relevant to the planning process and favours mining proposals over strategically significant agricultural land and industries and diminishes the policy intention underpinning the Gateway Process.

It is noteworthy that the Gateway Panel 2015 Report recognised in its report that the *“equine and viticulture CICs are in proximity to the project boundary. It has been previously identified by the Gateway Panel (MPGP, 2013) that consequences of this proximity, such as loss of landscape values and impacts on the equine cluster viability, were the most material potential impacts of the mining operation as proposed at that time.*

Given the significance of potential impacts and uncertainties with regard to mitigation, and the dearth of scientific literature concerning the potential impacts of open cut coal mining on nearby equine breeding enterprises, particularly with respect to environmental stressors such as noise, dust and vibration, the Gateway Panel concluded that the Precautionary Principle should be applied (MPGP, 2013). “



Gateway Panel Report 2013

In 2013 the Drayton South project was assessed by all six members of the Gateway Panel. In that report they found:

- **The potential impacts of the proposed mine on the Critical Industry Clusters are significant.** These potential impacts include those from dust, noise, vibration and blast overpressure, and most importantly, loss of landscape values through diminished visual amenity (Executive Summary).
- The loss of landscape values is considered the most material potential impact as landscape values underpin the core businesses of both Critical Industry Clusters, eg the nearby Coolmore and Woodlands (Darley) thoroughbred horse studs and the Arrowfield Estate vineyard and winery (Executive Summary).
- With respect to the equine cluster, **it is the Panel's view that open-cut coal mining as proposed at Drayton South, and thoroughbred horse breeding studs of the nature, scale and importance of Coolmore and Woodlands (Darley) are incompatible land uses that cannot coexist in close proximity** (Executive Summary).
- **The potential impacts of the proposed mine would be significantly deleterious to these horse studs and the equine cluster, to the extent that it may cause these studs to exit the region and demise of the cluster** (Executive Summary).
- Concerns about the potential long-term salinity increases in the Hunter River (300+ years) (p15).
- the predicted salinities for the final void lake are likely too low. If the final void lake is more saline than predicted by the PPR then the salt load into the surrounding aquifers, Hunter River and Saltwater Creek will also be higher than indicated in the PPR. The report does not provide the data required to assess the potential scale of this effect (p18).
- The project would have a direct impact on CIC support services which would threaten the core components of the Equine CIC comprising the Coolmore and Woodlands (Darley) businesses (p19).
- The Project would impact on local traffic levels and add to the burden which the existing transport network would incur. ...The Project would add to traffic issues and reduce the present level of transport efficiency between elements of the CICs in the region (p19).

Many of the 2013 Gateway Panel findings remains unresolved and continue to be of serious concern with respect to Anglo American's second Drayton South application.



4. THIS PROPOSAL DOES NOT MAKE ECONOMIC SENSE – A SMALLER MINE CANNOT BE JUSTIFIED

In our previous submissions on Anglo American's proposal for an open cut coal mine at Drayton South, our economic experts demonstrated critical deficiencies in the Proponent's economic analysis and called into question the economic merit of the mine.

Our expert advice revealed that the previous application did not:

- Satisfy the SEARs or Treasury guidelines;
- Overestimated the benefits and underestimated the costs;
- Ignored the impacts of the proposal on the studs and equine critical industry cluster;
- Had the potential to fragment and destroy the Hunter Valley's equine critical industry cluster and Australia's international breeding and racing reputation;
- Would result in an economic loss to NSW of \$457m, a loss of \$120 m per annum to the regional community and threatened at over 640 jobs in our industry and many more if the impacts on the wineries and regional tourism were taken into account.

We submitted that this was not a suitable site for the Project and that the Project was not in the public interest. A finding that was later shared by the Determination PAC in its decision to refuse Anglo American's previous Drayton South application.

Nothing has changed.

As with Anglo American's previous proposal for Drayton South, the economic and social impact assessment of this proposal:

- does not satisfy the Secretary's Environmental Assessment Requirements.
 - Anglo American has **not** undertaken a detailed assessment of the economic and social impacts of the project – paying particular attention to the impacts on the operation and reputation of the Upper Hunter equine and viticulture critical industry clusters and the associated tourism industry.
 - Anglo American has also not undertaken a detailed assessment of the likely economic impacts of the development;
- does not comply with Treasury economic assessment guidelines.
 - Anglo American's EIS fails to provide the necessary transparency to enable a thorough investigation of the key assumptions underpinning the economic analysis;
- over estimates the benefits and underestimated the costs of the proposal.
 - It excludes socio-economic impacts, including impacts on the studs, wineries and tourism and includes secondary benefits that are not relevant to the cost benefit analysis of the project;
- lacks transparency and/or consistent modelling with respect to assumed coal prices, extraction rates, operating and rehabilitation costs:
 - A copy of the report that is used to justify the coal prices: (UBS (2015 UBS Investment Bank, Consensus Commodity Pricing Forecast for December 2014) should be made publicly available;
 - A detailed breakdown of the rehabilitation and decommissioning costs (for both the Drayton mine and proposed Drayton South mine), currently an aggregated number only in the report – should also be made publicly available;
 - Anglo American's Annual Report 2014 identifies that "A charge of \$222 million (\$155 million after tax) has been recognised following the decision by the NSW Planning Assessment Commission not to approve the Group's application to proceed with the Drayton South



project. ... a provision has been made for the cost of meeting contractual and other obligations beyond the life of the existing Drayton mine (p 125).

- Why is this reported cost – that appears to be related to the decommissioning of the Drayton mine – so much higher than the decommissioning and rehabilitations costs that are reported by Gillespie Economics (2015)?
- Gillespie Economics reports that “Under the base case ... decommissioning and rehabilitation costs of approximately \$66M will be incurred at the end of 2015. With the Project, these costs will occur in 2013” (p E-25).
- A detailed breakdown of the operating cost profile (cost each year) and a breakdown of the specific costs should be made publicly available;
- raises serious questions regarding the significant reduction of capital expenditure and consequent implications for the mine’s operations;
- fails to assess and entirely ignores the impact of the proposal on the studs.
 - Instead, Anglo American makes unjustified assertions, not backed up with objective evidence, regarding the impact of the project on neighbouring studs;
- lacks transparency with respect to the sensitivity testing, and appears to underestimate the sensitivity of results to key assumptions;
- fails to provide a breakdown of the rehabilitation and decommissioning costs for the project; and
- does not justify why a smaller mine is now economic when previously the proponent stated that a smaller mine would not be economically or financially viable.

Smaller Mine Plan Not Economically or Financially Viable

It is noteworthy that Anglo American had many opportunities to address the recommendations of the earlier PAC Review but chose to strenuously contest that minimum setbacks were “*unnecessary and would render the project economically unviable*”.

Anglo American consistently protested throughout the last process that a smaller mine plan would have a “*material impact on the project economics*”; would render the project “*financially and economically unviable*”; that the “*Redbank Pit is fundamental to the economic viability of the mine as a whole, and if this pit is removed it is likely that the project would not proceed*”.

Significantly the Secretary’s Environmental Assessment Report of July 2014 in recommending in favour of the mine, relied on Anglo American’s advice that the PAC’s recommended setbacks were unnecessary and the retention of the Redbank pit was fundamental to the Project’s economic viability.

“Anglo argues these setbacks are unnecessary and would render the project economically unviable” SEAR p 29

“The Department also notes that Anglo has advised that mining the coal in the Redbank Pit is fundamental to the economic viability of the mine as a whole, and if this pit is removed it is likely that the project would not proceed.” SEAR p34

Annex 1 to this submission provides a number of examples where either Anglo American, expert advisers to the Department of Planning and the Department of Planning attest to the fact that a smaller mine on this site, particularly one that removes the Redbank pit, will have a material impact on the project economics and render the Project economically unviable.

The materiality of the Redbank Pit to the mine as a whole is a serious matter that calls into question the credibility and veracity of the Proponent’s claims either with respect to their previous statements or the claims that are made in this application.



5. THE EIS DOES NOT ADEQUATELY ASSESS KEY ENVIRONMENTAL IMPACTS

Water

Concerns relating to the Hunter Valley's vital water systems, particularly the Hunter River (the lifeblood of our industry) which have been raised throughout the previous assessment process, continue to remain significant concerns for our industry.

It is noteworthy that long term water impacts and the final landform were concerns raised by the Review PAC and are concerns that remain today.

Preliminary analysis of the Drayton EIS reveals that:

- Significant concerns remain regarding the final void water and salt balance modelling.
 - There is a significant lack of clarity between the "final void" and "spoil" water/salt balance;
 - Reporting on these issues lacks clarity and full transparency of key inputs and assumptions;
 - Importantly critical assumptions do not appear to be based in science nor representative of real world surface water/groundwater behaviour;
 - There is no evidence to support the statement "The gradients will enable gross flow of water from the void into the spoil of about 100ML/a" (AGE report page R- 87)
 - We have no confidence that the long-term results reported in the assessment can be relied upon for predictive purposes.
- It does not comply with the NSW Aquifer Interference Policy.
 - All calculations have been based on the outcomes of final void modelling over which there are significant and material doubts regarding its predictive capability;
 - Post-mining proposal comprises an ongoing, uncontrolled discharge that would impact most significantly upon low flow salinity conditions within the Hunter River which the Hunter River salinity Trading Scheme was set up to improve and protect;
 - Impacts once realised would be uncontrolled, occur over the very long term and be impractical, if not impossible to mitigate once realised;
 - The combination of lack of confidence in predictive modelling and potential for long-term legacy issues for the State of NSW that requires much greater scrutiny and assessment be placed on long-term water assessment.
- Surface Water assessments are misleading and lack scientific basis.
 - As we have previously submitted, the probabilistic values reported by Anglo American are not statistically valid and hence the forms of analyses are potentially misleading;
 - This invalid statistical interpretation means that the design of the water management system is much more likely to be exceeded (by 25% rather than 1%) than recognised or anticipated by the Proponent;
 - Anglo American's current mine plan reveals a significant change in the overall site water balance (changing from a "net producer of water" to a "zero discharge Project")
 - There is no scientific support for the statement "*This analysis confirms that the Drayton Complex will not be required to discharge mine water under any rainfall scenario.*"
- High risk and uncertainty remains with respect to mine plan implications for water management:
 - Current agreements between Anglo American and adjacent operations inject a high element of uncertainty regarding actual water management and tailings/reject plans;



- There is a lack of clarity regarding details of existing agreements and therefore lack of clarity (and risks) regarding the potential implications of this proposed project when these agreements end.
- For example, the ongoing utilisation of some or all of the North, East and South Voids represent a critical element of both the proposed and reported water management plan and rejects tailing management plan.
- However the reported impact assessment is based on an assumed “scenario 2” which does not represent current legal agreement conditions. No meaningful assessment of the potential implication of alternative mine plan scenarios is provided.
- The South Void of the current Drayton Mine represents a critical component of the proposed water management plan – providing some 92.5% of the assumed on-site water storage capacity over the life of the Project. However the agreement in place between the Proponent and AGL Macquarie to utilise the South Void ceases on 1 January 2023 - **some ten years before the proposed end of the Project operation.**
- There are significant inconsistencies and a lack of clarity regarding Scenario 3 details between the Main report and the Surface Water Impact Appendix. In the former East (North) the void is used to store coarse rejects during the life of the Project while in the latter this void is to store water from 2023.

As we have consistently outlined in previous submissions throughout the previous assessment process, the assessment of water impacts of this Project are deficient, lack transparency, and provide potentially misleading conclusions. They do not appropriately address the high risk concerns our industry and the PAC has raised on water matters and they fail to ensure the highest levels of protection for the studs.

Air Quality

The air quality assessment provides no confidence that likely air quality impacts have been properly assessed and adequate control measures have been identified or could be implemented.

- The EIS summary document does not accurately portray the conclusions of its consultants.
 - It smooths or flattens data, conclusions and recommendations that have been presented by its consultants.
- Adequate details of the source of the emissions inventory used by the Proponent’s air quality consultant in preparing its modelling and air quality predictions were not provided.
 - Accordingly, no assessment can be made as to whether the inventory used was either robust or representative of future operations.
- The actual emissions input data and the choice of averaging periods are inadequate.
 - Contrary to contemporary practice, annual averages rather than short term averages were used.
 - Annual averages “flatten” the data and do not show enough resolution for short term impacts on human and equine air quality.
 - Existing impacts nearer the existing mine boundaries have not been monitored or not linked to the proposed boundary of Drayton South and the horse studs.
 - The assessment relies on emissions input data and information on associated emissions controls provided by the coal industry.
 - This data has not been independently sourced or verified.
- The reporting of the existing monitoring of ambient air is not representative of the predicted air quality impacts for the following reasons:



- A Tapered Element Oscillating Microbalance (TEOM) was not used.
- No High Volume Air Sampler (HVAS) was used.
- The control measures recommended are too generic to ensure verifiable and consistent implementation.
- The information provided in the report is not adequate to enable assessment of impacts to equine health.

Acoustic – Noise and Blasting

Preliminary analysis shows that Anglo American's Drayton South project has the potential to exceed prescribed noise limits in accordance with the NSW INP and provides no evidence that the project will continuously or appropriately comply with the project noise limits.

- The assertions in the EIS to the effect that noise levels at receivers to the South of the Drayton South Mine will not exceed background noise are not credible. The methodology and sampling data used to establish the background noise levels was flawed and contains conclusions unsupported by the available data:
 - The assessment of background noise levels is based on out-dated 2011 monitoring data that was not undertaken in accordance with standard protocols;
 - It demonstrates no understanding of the potential for change to background noise levels in the vicinity of noise sensitive receivers for the duration of the project;
 - The assumed background noise levels used for the Drayton South assessment include noise generated by the Drayton Mine, contrary to standard practice; and
 - Background and operational noise levels for large sections of the horse studs were not assessed.
- The assumptions and methodology used to predict project noise are flawed:
 - The assumptions regarding project operational noise sources:
 - do not align with the details in the EIS documentation as to the nature of the vehicle/equipment to be used or the location of those operations;
 - are based on unverified, inappropriate or incomplete sample data from noise sources; and
 - overstate or do not justify the predicted noise amelioration of additional noise mitigation measures proposed.
 - The correction factor of minus 3dBA for the contribution of industrial noise levels is an unconventional methodology that has not been fully detailed in the report.
- The Modelling used lacks transparency. The ENM software model used to predict noise impact is outdated and provides large scale and limited information.
 - Insufficient information on the algorithms used in the model is provided to enable peer review.
- Even with these flaws, the acoustic assessment undertaken by the proponent clearly demonstrates:
 - The project will exceed the adopted project specific noise limits (PSNL) at some sensitive receptors in the ordinary course and may significantly exceed the PSNL if wagon bunching or other events occur;
 - Compliance with PSNL is predicated on a "best case scenario" where all possible noise control and mitigation measures are successfully and consistently implemented; and



- Noise from more distant mining operations at Mount Arthur and to the North East of the horse studs is already audible at the receivers near the horse studs.
- The noise and blasting assessment conducted by Bridge Acoustics for Anglo American is based on outdated 2011 information.
 - No updated noise monitoring has been presented in support of this application.
 - No commentary detailing the acceptability of 2011 measurements for an assessment issued in 2015;
 - No understanding of the potential for change to background noise levels in the vicinity of noise sensitive receivers for the duration of the project.
- The noise and blasting information is incomplete, misleading and does not comply with the NSW Industrial Noise Policy (INP).
 - For example there is no evidence to suggest that *“the new project application to ensure background noise levels experienced at both horse studs are no higher than existing background noise levels”* has been assessed or will be achieved.
 - Bridges Acoustics has not demonstrated that compliance has been achieved with the INP and all nearest affected noise sensitive receivers.
 - It is fundamental that compliance with noise limits can be demonstrated at this planning phase of the project.
- Lack of transparency and inconsistency of the methodology and modelling used:
 - For example background noise measurements are disregarded in certain sections of the analysis (eg section 3.1.1) yet accepted and included in others (eg section 3.3).
- Blast overpressure and vibration assertions are misleading and/or cannot be verified
 - We question the validity of the assertions made in the Bridges Acoustic assessment of blast overpressure and vibration and therefore the Project’s impacts on nearby landholders, our industry, employees and livestock.
 - The impact assessment is based on generic assumptions rather than monitored data.
- Detailed noise algorithms and supporting information have not been provided to enable a transparent and comprehensive assessment.
 - No evidence is provided to support the claim that the Anglo American is using best practice noise mitigation strategies.
 - Irrelevant commentary is put forward with insufficient supporting information regarding the purported noise mitigation strategies
- Noise impact assessment relies on noise measurements undertaken by other acoustic consultants on projects not related to Drayton Mine (Section 5.5 of the report)
 - Noise measurements relating to this section are also taken in 2011 however the origins of these measurements are unknown.
 - Further noise models have NOT been calibrated against existing conditions.
- Predicted mining noise levels (in section 5.6 of the report) demonstrate that during evening and night-time period the noise emissions will NOT comply with the project noise limits.
- Noise modelling does not align with best practice.



Soil and Land Capability

Preliminary evaluation of the Drayton South EIS:

- reveals that the proposal will significantly and permanently reduce agricultural productivity in the project area and greatly increase the risk of environmental damage to local streams via sedimentation;
- shows that BSAL lands extend well towards the centre of the mining void;
 - that is, the proposed mining involves use of BSAL and will significantly reduce the agricultural productivity of the land;
 - maps within the EIS show that there will be a decline in capability of BSAL lands and a clear loss of class 3 agricultural land suitability within the BSAL lands;
 - much of the lands that met the BSAL criteria are shown as class 5 land following mining;
 - this is a highly significant loss of BSAL land in an area north of the Golden Highway and east of Edderton Road where BSAL appears to be relatively scarce.
- reveals that the evaluation of pre and post-mining agricultural land suitability classes are based on outdated 2002 publications (rather than contemporary Office of Environment and Heritage (OEH) 2012 land and soil assessment criteria and 2013 OEH interim Protocols for site verification and BSAL mapping);
- based on data presented in this EIS, shows that there will be a net loss of productive land from the region, including a:
 - loss of 253 ha of moderately productive land;
 - net loss of 122 ha of class 4 land;
 - conversely class 5 land will be increased by 379 ha.
- presents no contour maps for the site to allow independent scrutiny of land to be disturbed
 - for example mining in the areas of TP114 and TP115 will release salt from soil resulting in setting subsoils and an increase in runoff potential, subsequent erosion and poor vegetation response;
 - The salt will be released into the drainage lines and these drainage lines with salt loading will flow into the Hunter River;
 - This will have major consequences for downstream horticultural crops.
- provides inadequate information on soil sampling locations
 - the number of soil samples taken in test pits is relatively low;
 - given the geology in the Hunter region is very complex correlating the site specific information (using 1:50 000 scale survey compared to a 1:25 000 scale survey)) will be difficult;
- shows that, considering that geology provides the chemical and physical properties of the soil, there is insufficient sampling to accurately determine soil boundaries;
- fails to discuss Domain C soils (which are suited for improved pastures) even though it covers the majority of land in the project area;
- reveal that soils in the southern portion of the mining void are sodic and saline
 - These features make rehabilitation extremely difficult
 - Stockpiling these soils will create a significant risk of sediment mobilisation and contamination of local drainage lines with unstable clay and salt.



- exposed sodic, saline soils are very difficult to revegetate, yet the EIS suggests that they can be used for rehabilitation.

As noted in section 3 of this submission, the Gateway Panel in issuing a conditional certificate for this project found that it would have direct and significant impacts on the agricultural productivity of verified BASL within the Project Disturbance Area.

In particular the Gateway Panel found the Project's application will have significant or potentially significant impacts in respect of 17 H(4) (a):

- (i) *impacts on the land through surface area disturbance and subsidence,*
- (ii) *impacts on soil fertility, effective rooting depth or soil drainage,*
- (iii) *increases in land surface micro-relief, soil salinity, rock outcrop, slope and surface rockiness or significant changes to soil pH,*
- (v) *fragmentation of agricultural land uses,*
- (vi) *reduction in the area of biophysical strategic agricultural land.*

It is not clear whether the EIS has addressed the concerns identified by the Gateway Panel with respect to the significant BSAL impacts associated with this project.

What is clear is that :

- the majority of lands in the project area are covered with productive soil;
- most of these soils are vulnerable to disturbance that exposes the unstable subsoil;
 - This will result in increased erosion rates, sediment mobilisation and likely contamination of local waterways with clay dominant sediment that can smother stream floors;
 - Increased salinity could also occur in the Hunter River as a result of landscape disturbance.
- it is highly unlikely that such soils can be rehabilitated to pre-mining conditions
- the claims made by the Proponent in this EIS that "The project will not reduce the availability of land for agricultural purposes" is patently untrue. The EIS clearly shows the degradation of land from agriculturally suitable class 3 land to class 5 land (land used for limited grazing);
- BSAL land will be destroyed by mining activity;
- proposed offsets are in areas of much poorer country than that found in the project area and therefore the proposed offsets cannot be considered equivalent.

Biodiversity

Further we note that:

- The 151 ha Grey Box Woodland intended to be cleared within the project area conforms with the ecological community Central Hunter Valley Eucalypt Forest and Woodland Complex.
- This ecological community was formally listed as critically endangered under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) on 30 April 2015.
- This listing occurred prior to the Drayton South Coal Project Environmental Impact Statement (EIS) going out on public exhibition for comment.
- There has been no consideration by the Proponent, or the Department of Planning and Environment, of the implications of this new listing on the assessment requirements for the Project.
- The EIS incorrectly states that 22 ha of impacted vegetation conform with critically endangered ecological communities (CEEC) listed under the EPBC Act. This figure should be 173 ha with the inclusion of the 151 ha of Central Hunter Valley Eucalypt Forest and Woodland Complex CEEC.



This is a major omission and another reason why this application should be rejected. The NSW Biodiversity Offset Policy for Major Projects specifically excludes variation to 'like-for-like' offsetting for critically endangered species and ecological communities that are listed under the EPBC Act.

The Biodiversity Offset Strategy for the Project does not provide adequate 'like-for-like' offsets for the area of CEECs to be cleared.

Visual Landscape

Findings of the PAC and concerns raised by our industry relating to the preservation of the visual landscape and the proximity of this mine to the studs and winery remain unaddressed.

The fact remains that this mine plan is less than 1km from the studs. This was and remains unacceptable to our industry.

Statements made by the Proponent that *"there will be no impacts on Coolmore and Woodlands Studs and the amenity of the surrounding landscape"* are manifestly misleading and incorrect.

Preliminary analysis of the information provided by the Proponent reveals that:

- There will be a range of direct and indirect visual impacts on the studs.
 - Particularly from elevated parts of both properties and the Golden Highway which is the main tourist route and thoroughfare into the Upper Hunter.
- Dust, plumes and blasting will be visible from all parts of the studs and highway.
 - It is disingenuous for the Proponent to assert that there will be no impacts on the studs and the surrounding landscape from this Project.
- Mitigation measures, such as tree screening along the Golden Highway will not address visual impact concerns.
 - Very little attention has been paid to the impacts of blasting and dust fumes which will be visually significant over very large areas and distances (as demonstrated by Mt Arthur's botched mine blast in February 2014 where ammonium nitrate and fuel oil were detonated at the mine causing poisonous fumes containing nitrogen dioxide to spread several kilometres from the mine site across Muswellbrook).
- Windborne dust from extensive areas of exposed earth and rock in the pits or overburden areas will be visually significant.
 - No mention or assessment of this, including in significant dry or windy conditions, is made in the EIS.
- Rehabilitation remains a significant concern
 - Given the Proponent's poor track record at Drayton North and the significant concerns raised by the determination PAC, we have no confidence that progressive micro-relief and rehabilitation will occur in a manner that is sensitive to our industry, reputation and concerns or compatible with landscape of the surrounding area.



Aboriginal Heritage

A preliminary review of the Aboriginal Heritage Assessment conducted by AECOM for Anglo American's Drayton South project demonstrates that:

- The Project's methodological Secretary's Environmental Assessment Requirements have not been met.
 - No archaeological test excavation has been undertaken;
 - 2011 Archaeological data used for the assessment is too dated to form the basis of a current values impact and management assessment.
- The Project's Aboriginal assessment methodology has not followed the requirements of the Burra Charter or OEH guidelines or policy for values identification and assessment.
 - The Burra Charter requires a holistic approach with assessment of scientific, social (including spiritual) historical and aesthetic values.
 - While AECOM acknowledges these requirements the scientific values assessment has ignored archaeological potential.
 - The social values assessment details that Mt Arthur and Saddlers Creek were "culturally important features in the local landscape" (section 8.4.1). Further descriptions (section 3.1.25) define that "the study area and its immediate surrounds was a corridor between locales, which retained significant archaeological evidence of past Aboriginal utilisation."
 - However the values assessment has not described how these values relate to the project area and the presentation of aesthetic descriptions, along with appropriate consultation with the Aboriginal community are absent from the report.
 - Intangible values have not been mapped, subjected to impact assessment or consequential management requirements.
- The AECOM and Hansen Bailey 2015 reports contain errant statements – for example:
 - Relating to the number of sites recorded that will be impacted; and
 - The "salvage of all Aboriginal archaeological sites identified within and adjacent to the then approved disturbance footprint in July 2010. This included the additional mining area. As such, there will be no impacts as a result of additional mining proposed at the Drayton Mine" - which is clearly incorrect.
- The EIS has made no serious attempt to assess the impact this Project will have on over 150 individual Aboriginal sites and artefacts.

To suggest that the impacts on these sites and artefacts will be managed through the revision of an Aboriginal and cultural heritage management plan is seriously flawed and attempts to circumvent an appropriate and comprehensive assessment of the Aboriginal heritage assessment which should be undertaken as part of this planning phase.

Non-Aboriginal Heritage

A preliminary analysis of the Non-Aboriginal Heritage assessment conducted by AECOM for Anglo American's second Drayton South project reveals:

- The AECOM report has not adequately satisfied the Secretary's Environmental Assessment Requirements



- The level of significance (eg National State or Local) for the cultural landscapes and other items has not been determined
 - This is not in accordance with standard practice as outlined in the Heritage Manual and other relevant guidelines
- The AECOM report relies on the description and values that are over 30 years old
 - No up to date significance assessment under applicable NSW heritage assessment criteria has been undertaken by AECOM.
- The cultural heritage landscape assessment has not been undertaken in accordance with NSW heritage assessment criteria or accepted procedure
 - This does not comply with criteria and procedures outlined in the Heritage Manual or the ICOMOS Burra Charter.
- The Drayton South Cultural Landscape Assessment has not been subjected to a sound analysis and assessment under the NSW heritage assessment criteria
- Some culturally significant items have not been adequately researched or assessed
 - For example the Randwick Homestead
- No methodological statement or evidence is provided to demonstrate that further consultation (mandated in the SEARs) or social values assessments have been undertaken.

An assessment of cultural significance is the accepted basis and a necessary prerequisite for good decision-making about heritage. There are important omissions in the significance assessments for heritage items including landscapes in the AECOM report.

Given the assessments of significance are incomplete and the level of significance has not been determined, the degree and level of impact cannot be accurately determined.

The lack of information provided as part of this EIS cannot be relied upon to assess or determine the heritage impacts of this Project.

Human and Equine Health

Preliminary expert advice reveals that despite the findings of the PAC that the *“proposal did not demonstrate that [the project] will not adversely impact on equine health”* Dr Kannegieter’s report is substantially unchanged from his initial report, which in our view and that of our experts, contains little or no new relevant information.

Dr Kannegieter provides no basis for his opinion that horses will be unaffected by dust from coal mining activities – despite the evidence in Dr Kannegieter’s own literature review that increased environmental dust is an important and direct contributor to respiratory disease in horses and, in particular, can adversely affect performance in athletic horses.

Advice presented on behalf of Anglo American by ” Dr Kannegieter:

- Contains no information regarding the possible effects of coal mine dust on the respiratory health of horses;
- Dismisses the wealth of information on the effects of exposure to coal mine dust in human literature on the basis of unsubstantiated proposed “differences” between the human and equine respiratory tracts.



- Ignores that exposure to coal mine dust causes a range of respiratory diseases in humans collectively termed “Coal Mine Dust Lung Disease” (CMDLD) which includes well-known “Coal Workers” Pneumoconiosis (CWP)
 - CMDLD and CWP remain important human health concerns even in first world countries where there is evidence that respiratory disease associated with coal mining activities is increasing both in prevalence and severity;
 - Pneumoconiosis has been described in pit ponies indicating that horses are certainly not immune to the effects of coal mine dust as suggested by Dr Kannegieter’s report;
 - Dust originating from coal mining, with or without silica content, is a well recognised cause of respiratory disease in humans.
- Fails to adequately describe the expected levels of particles smaller than PM10 that are thought to be the more important contributors to respiratory disease;
- Presents annual means data which is misleading as they obscure acute increases in dust levels that may be detrimental to respiratory health;
- Makes irrelevant and continual references to Inflammatory Airway Disease (IAD) which is not relevant when considering horses living at pasture and exposed to dust originating from coal mining operations;
- Incorrectly contests that horses living in a dusty environment with IAD perform well – comments that are contradicted within Dr Kannegieter’s own body of work.

It is concerning to note that from the data provided in Anglo American’s EIS that the annual average PM10 concentrations of Muswellbrook (a relatively small rural town with population of 12,000) is similar to that of Footscray (a moderately industrialized area within a major city) presumably due to Muswellbrook’s proximity to existing coal mines.

The Anglo American EIS presents no new information and compounds our concerns, and those expressed by previous PACs, regarding the health and welfare of our community and our livestock, the health impacts of this mine and the cumulative impacts of mining in general in our region.



DRAYTON SOUTH – ECONOMIC VIABILITY OF RETRACTED MINE OPTIONS

Examples of statements by Anglo American personnel and expert advisors to, and officers of, the Department of Planning to the effect that a smaller mine on this site, particularly one that removes the Redbank pit, will adversely impact the project's economics and/or render the project economically unviable.

Runge Pincock Minarco Report – May 2013 – Report to Department of Planning	
P iv	Removing or reducing the size of the Redbank Pit ... would underutilise the coal processing plant and the truck and shovel fleet, thereby removing low strip ratio coal from the first 19 years of the project. This would have a material impact on the project economics.
P 16	Removing or reducing the size of the Redbank ... would underutilise the CHPP capacity and the truck and shovel fleet, thereby removing low strip ratio coal from the first 19 years of the project. This would have a material impact on the project economics.
Anglo American – Presentation to Review PAC – October 2013	
Slide 12	“Further changes to the mine plan and delays to the proposal will make the project financially unviable ...” Mr Seamus French, CEO
Anglo American Supplementary Information to the PAC – November 2013	
Section 3.3 (g)	Further curtailment as proposed by Coolmore in their submission (suggesting that Houston be excluded and Whynot further reduced to remain behind existing natural ridgelines) would result in the sterilisation of an additional 23 Mt of coal (bringing the total coal sterilised to 80 Mt). This would reduce the available reserves from 115 Mt (as included in the PPR) to 92 Mt and would represent a material impact on the Project economics ... This would render the Project unviable.
Section 3.3 (h)	As demonstrated in the above point any further curtailment of the Project would further sterilise the community's socially and environmentally recoverable coal, materially impact on the economics and viability of the Project ...
Clarification on Submissions to the PAC P 2	Based on the latest proposal from Coolmore (as stated in their submission to the PAC) suggesting that the Project “exclude the Houston mining area and further reduce the Whynot mining area to remain behind existing natural ridgelines” , it is estimated that an additional reserve loss of more than 23 Mt would be incurred. This option would have material impacts on the viability of the Project and for this reason it is not considered feasible by Anglo American. This view was supported by the RPM Independent Mine Plan Review which was completed for the New South Wales (NSW) Department of Planning and Infrastructure (DP&I). In their review, RPM also investigated this option and concluded that “it would have a material impact on the project economics” .
PAC Review Report – December 2013	
P 23	The Department requested advice on a number of possible options to change the Drayton South mine plan (to reduce the impacts on the horse studs), broadly these can be summarized as:



	<ul style="list-style-type: none"> • The removal of the Houston and Redbank Pits; • The removal of all elements of the project that would be visible from Coolmore's property; and • Various options for delaying and/or reducing the impact of the visual bund. <p>The Department asked RPM to provide comment on both the technical and financial implications of these options.</p> <p>In relation to the financial implications, RPM generally found that the key changes it was asked to consider would have a material impact on the project economics.</p>
Section 4.2.4 Recommended avoidance and minimisation measures P25	<p>...the Commission considers that it would be essential to set the mine back behind the natural ridgeline and remove the majority of the Redbank pit (to the second ridge) - to protect the horse studs from the impacts of mining.</p> <p>The Commission acknowledges that these recommended changes may prove either technically and/or financially unviable. If this smaller footprint is found unviable, then the Commission considers that the project cannot proceed.</p>
P 28	<p>The Commission has found that these setbacks are the absolute minimum required and additional work would be needed to demonstrate that mining in the remaining northern area of the site would not cause any significant impacts to the two studs.</p>
Anglo American Justification Report – February 2014	
P 28	<p>The PAC recommended mining setbacks with the intention of protecting the horse studs. As discussed in Appendix E, the removal of the Houston mining area and a portion of the Whynot mining area will result in the sterilisation of approximately 30 Mt of coal. This would reduce royalties to NSW by approximately \$18 million (present value) and company tax to Australia by approximately \$55 million (present value).</p> <p>The setbacks proposed would also materially affect the viability of the Project and put at risk the significant benefits that it would provide to the public. ...</p> <p>Therefore, the setbacks recommended by the PAC are contrary to the public interest.</p>
Appendix A - Response to PAC P 31 of 47	<p>Anglo American considers that the recommended setbacks would cause the Project to become economically unviable. ... As such, Anglo American concludes that the recommendations of the PAC Report would not achieve fair, reasonable and practical environmental outcomes.</p>
Appendix E – Gillespie Economics Advice P 4	<p>Anglo American has advised that it would not be financially viable to setback mining operations behind the yellow line in Figure 5 of the PAC's report.</p>
Anglo American Consequential Environmental Impact Assessment for Retracted Mine Plan – March 2014	
P 2	<p>Anglo American reviewed the feasibility of removing a greater portion of the Redbank mining area as recommended by the PAC and found that this would make the Project unviable ...</p> <p>Further details with regard to the importance of the Redbank mining area to the Projects viability are included in Section 2.3.</p>
P 7 – Section 2.3.1	<p>The Redbank mining area in this plan contains approximately 19 Mt ROM coal, which yields 14.3 Mt product coal. The Redbank area supplies a significant portion of the total tonnage, contributing approximately one third of annual mined tonnes during its life.</p>
P 7 – Section	<p>The Redbank area is a critical and integral part of the mining schedule. The importance of</p>



2.3.2	Redbank to the mining schedule is increased with the removal of the Houston mining area and the south east portion of Whynot. The retracted mine plan has an increased reliance on dragline overburden movement. The Redbank area becomes critical in the absence of the Houston area in providing the dragline with an alternative working area as the strike length in Whynot reduces. Without the Redbank area the scheduling of a continuous dragline operation becomes impossible resulting in costly and uneconomic park-up periods in the schedule.
P 7 – Section 2.3.3	A reduced cash flow of more than \$900M and a 25% reduction in NPV would result from the removal of the Redbank mining area. The removal of this low cost resource from the mine plan would render the project unviable.
P 7 – Section 2.3.4	The Redbank mining area is an integral part of the mine plan for the Project. It makes a significant positive contribution to the value of the Project and permits efficient scheduling of the dragline process. The Redbank operation is completely screened behind the existing ridgeline and it has been confirmed that the removal of this operational area from the mine plan would render the Project unviable.
P 7 – Section 2.3.4	The Department of Primary Industries also raised this concern following their own review stating that “the effective removal of two of the four pits also brings into question whether changes to the net present value of the deposit and the flow through effects on mine scheduling, equipment usage and the ability to still produce the required products would render this proposal uneconomic”. Previous independent mining engineer reviews conducted by Runge Pincock Minarco (for DP&I) and R A Jennings & Associates (for PAC) support this finding.
Secretary’s Environmental Assessment Report – July 2014	
P iii	Although the southern corner of the Redbank Pit has been removed to increase the distance between the mine and the Woodlands horse stud, neither the Blakefield Pit nor the Redbank Pit have been setback behind the second ridge to the north of the Golden Highway as recommended by the PAC. Anglo argues these setbacks are unnecessary, and would render the project economically unviable.
P iv	The Department does not consider these impacts to be significant enough to warrant making further changes to the mine plan, such as excising the Redbank Pit, as this would sterilise another 19 million tonnes of ROM coal (worth between \$1.3 and \$1.5 billion) and jeopardise the viability of the project as a whole.
P 29	Although the southern corner of the Redbank Pit has been removed to increase the distance between the mine and the Woodlands horse stud, neither the Blakefield Pit nor the Redbank Pit have been setback behind the second ridge to the north of the Golden Highway. Anglo argues these setbacks are unnecessary, and would render the project economically unviable.
P 34	The Department also notes that Anglo has advised that mining the coal in the Redbank Pit is fundamental to the economic viability of the mine as a whole, and if this pit is removed it is likely that the project would not proceed.
P 34	The Department acknowledges that limited additional information has been provided by Anglo to assess the environmental impacts of the retracted mine plan, and this is one of the criticisms raised in recent submissions from the studs.



P 37	<p>To address the recommendations of the PAC, the retracted mine plan removes the Houston Pit, the associated visual bund, and the south eastern corner of the Whynot Pit. These changes result in the mining operations being confined to the north of the natural ridgeline between the Saddlers Creek and Saltwater Creek catchments.</p> <p>By making these changes, Anglo has effectively complied with <u>almost half</u> of the PAC's recommended setback requirement ...</p> <p>The key departure of the retracted mine plan from the PAC's recommendation is the retention of the majority of the Redbank Pit.</p>
NSW PAC Determination Report – October 2014	
Section 7.4.1 – Option for a smaller mine P 17	... the Commission gave consideration to whether an approval could be given to the retracted mine plan with a requirement to change the mine plan to meet the setback requirements recommended by the earlier PAC review.
Section 7.4.1 – Option for a smaller mine P 17	<p>In considering whether the Commission should request additional information from the proponent, the Commission noted that the proponent argued strongly in the CEIA Report that “the Redbank mining area is an integral part of the mine plan for the Project. It makes a significant positive contribution to the value of the Project and permits efficient scheduling of the dragline process.</p> <p>...the removal of this operational area from the mine plan would render the Project unviable.”</p>
Section 7.4.1 – Option for a smaller mine P 17	<p>The report also quoted the concern raised by the Department of Primary Industries that “the effective removal of two of the four pits also brings into question whether changes to the net present value of the deposit and the flow through effects on mine scheduling, equipment usage and the ability to still produce the required products would render this proposal uneconomic.”</p> <p>This view was also reiterated at the briefing meeting in early August 2014. The Department in its assessment report also noted and supported the economic viability argument.</p> <p>In the circumstances, the Commission does not consider approval of a smaller mine is an option that it is able to pursue.</p>
Section 7.4.2 – Rehabilitation P 18	<p>The contention was if the Drayton South mine is not a viable mine, it could be placed in caretaker mode following any approval. If this were to occur, this new consent would allow the proponent to defer its rehabilitation responsibility for virtually the life of the approval being sought, notwithstanding the Department's recommended conditions which require a Rehabilitation Strategy for the Drayton Complex by June 2015, which must include the details of a timetable for the rehabilitation stages for both the existing Drayton mine and Drayton South.</p>
Section 7.4.2 – Rehabilitation P 18	<p>Given the lack of progress with rehabilitation works on the existing mine, the Commission is not confident that the Rehabilitation Strategy will be implemented and the disturbed areas will be progressively rehabilitated regardless of whether the proposed mine goes ahead or is put in caretaker mode.</p>



HUNTER VALLEY – HORSE CAPITAL OF AUSTRALIA

INTERNATIONALLY RENOWNED, NATIONALLY, STATE AND REGIONALLY SIGNIFICANT

The heartland of Australia's premier thoroughbred breeding industry is concentrated in the NSW Hunter Valley.

Economically Significant

The Hunter Valley's multi billion dollar thoroughbred breeding industry is a vibrant, world renowned and economically significant agricultural industry. It contributes \$5b every year to the national economy and supports over 230,000 sustainable long term jobs throughout Australia.

In NSW it contributes over \$2.6 billion to the NSW economy, supports over 50,000 people generating sustainable jobs and investment. It attracts tourism to our regions and delivers a diverse economic base for regional Australia.

In the Hunter Valley it is the largest agricultural industry and employer. It is 2 times the value of irrigated agriculture, 4.5 times the value of dairy and 10 times the value of meat and cattle.

It supports over 5,700 jobs, 150 broodmare farms and a sophisticated network of equine supports industries. Industries ranging from fodder and lucerne producers, farriers, saddlers, equine transport companies, hospitality and retail, and the largest equine hospital in the Southern Hemisphere. Industries that would not exist in the Hunter but for the thoroughbred breeding industry.

Our industry is also important in the city. In Western Sydney and Sydney it supports over 15,000 people and a wide range of industries including wholesale and retail trade, accommodation, food, beverage, entertainment, education, training, arts and recreation.

The NSW Government's own studies affirm that the thoroughbred and racing industry is a significant employer and contributor to the NSW economy.

Internationally Renowned

As one of three Centres of Thoroughbred Breeding Excellence in the world – alongside Kentucky in the USA and Newmarket in the UK – the Hunter Valley's thoroughbred breeding industry has a proud and envied reputation of producing and exporting the best thoroughbred champions in the world.

The Hunter Valley's industry represents the second largest concentration of studs in the world, second only to Kentucky USA. This concentration of world-class thoroughbred breeding operations reflects world scale operations and world's best practice.

World class operations attract world class investment. Over the past 15 years more than \$5b has been invested in the Hunter Valley's breeding, training and racing operations.

The record-breaking 2015 Magic Millions sale grossed over \$100m representing the biggest yearling sale conducted in the Southern hemisphere in almost seven years – over 80 per cent of which were by Hunter Valley stallions. The top 120 lots sold were all sired by stallions based in the Hunter Valley.

The 2014 Inglis Easter Yearling Sale produced similar results with over \$90 million in sales and the majority of the catalogue (over 80 per cent) produced by Hunter Valley. The 2015 Inglis Easter Yearling Sale is poised to be the biggest sale conducted in the last 5 years.



Operating in a unique environment

The Hunter Valley's unique environment – its heritage, scenic landscape, plentiful water systems, rich soils and undulating lands – are essential attributes for breeding and training world leading thoroughbred athletes, attracting investment and maintaining sustainable jobs and diverse economies.

Producer and Exporter of Champions

The Hunter Valley is the heart and home of Australia's premier breeding industry. It produces:

- over 50 per cent of all thoroughbreds born in Australia;
- 70 per cent in volume and 80 – 90 per cent in value of Australian thoroughbred exports;
- 75 per cent of all horses racing in Sydney and Melbourne;
- over 80% of all yearlings at Australia's premier yearling sales.

Discerning clients travel far and wide to invest in Australia's premier stallions in the Hunter Valley.

Exports

The Hunter Valley's is Australia's premier thoroughbred export hub. The calibre and reputation of Hunter Valley thoroughbreds is reflected in the demand for Australian thoroughbreds from our Asian and Middle Eastern neighbours.

In 2013 Australia supplied over:

- 80 percent of thoroughbred imports into New Zealand,
- 58 per cent to the Philippines,
- 51 per cent to Macau,
- 46 per cent into South Africa,
- 43 per cent to Malaysia and
- 38 per cent to Hong Kong.

This trend will grow as the Asian markets grow and expand. Australia has an enviable reputation and track record of producing world champions. It is well positioned to take advantage of this growth and the value added opportunities it offers.

Part of Australia's sporting heritage and history

Since the first race staged by Governor Macquarie in Hyde Park in 1810 horseracing has been an important part of Australia's sporting history and heritage and is a quintessential part of our way of life.

From the breathtaking performances of Phar Lap, Tulloch, Makybe Diva to champion racehorses such as Choisir, Emancipation, Lonhro, Pierro, So You Think and Black Caviar Australian and international audiences have been captivated by our champions of the turf – many of which have indelible links to the Hunter Valley.

Today the Hunter's thoroughbred breeding industry is vertically integrated to the NSW racing industry which supports:

- 134 race clubs - many of which are located in, and form an integral part of, regional communities
- over 31,000 owners and syndicate members;
- over 1,000 trainers;
- nearly 11,000 horses in training; and
- over 250 jockeys.

Thoroughbred breeding has had a proud place in our sporting history, our communities and way of life for over two centuries – and if protected can continue to grow and prosper.



ECONOMIC SIGNIFICANCE

HUNTER VALLEY THOROUGHBRED BREEDING INDUSTRY

Internationally Significant	
1 of 3	International Centres of Thoroughbred Breeding Excellence in the World – alongside Kentucky in the USA and Newmarket in the UK
Largest	Concentration of thoroughbred studs in the world outside Kentucky USA
Largest	Australian producer & supplier of premium thoroughbreds
Largest	Australian exporter of premium thoroughbreds, representing:
• 80.35%	Imports from Australia to New Zealand
• 58.65%	Imports from Australia to the Philippines
• 51.63%	Imports from Australia to Macau
• 43.54%	Imports from Australia to Malaysia
• 38.83%	Imports from Australia to Hong Kong
Nationally significant	
\$5b	Contribution to national GDP annually
230,000	Jobs generated and sustained nation wide
State Significant	
\$2.6b	Contribution to NSW economy annually
53,696	People employed or participating in thoroughbred breeding and racing in NSW
34,000	People directly involved in breeding, racing or training in NSW
21,837	Thoroughbred owners in NSW
134	Racing Clubs in NSW
\$175m	Investment in NSW Racing infrastructure underpinned by the quality of bloodstock & racing product produced in the NSW Hunter Valley
Regionally Significant	
55% +	Of the \$2.6b total value added occurs in regional NSW
Largest	Agricultural industry in the Hunter Valley:
2 times	The value of irrigated agriculture
4.5 times	The value of dairy
10 times	The value of meat and cattle



150	Broodmare farms dependent on Hunter Stallion stud farms
Sophisticated	Network of equine support industries dependent on Hunter Valley stud farms – including farriers, fodder producers, saddlers, equine transport companies and the Southern Hemisphere's largest equine veterinary practice, Scone Equine Hospital
Significant Regional Employer	
42,586	Employees and participants in regional NSW:
• 5,745	in the Hunter
• 10,159	in Sydney
• 5,633	in Western Sydney
• 6,783	in Mid North Coast, Central Coast, Illawara and South Coast
• 14,266	throughout the rest of regional NSW
Significant Regional Investor	
\$5b +	Invested in the Hunter Valley's thoroughbred breeding industry in the past 10 years (and rising)

SOURCE: IER Pty Ltd Report 2006; IER Pty Ltd Report 2014, Marsden Jacob Associates Report 2014, Australian Stud Book

