Economic impact of the proposed Drayton South Open-cut Coal Mine

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Marsden Jacob Associates

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Introduction

Thank you for the opportunity to present.

Marsden Jacob Associates (Marsden Jacob) has been commissioned by Coolmore Australia and Darley Australia to review the economic aspects of:

- Anglo American Response to Planning Assessment Commission Review Report – Drayton South Coal Project (May 2016)
- Expert report of Greg Houston - A report for Clayton Utz on behalf of Anglo American Metallurgical Coal Pty Ltd (March 2016)
- Jeff Bennett, Review of the Supplementary Submissions by Hunter Thoroughbred Breeders Association, Coolmore Australia and Darley Australia on the Drayton South Coal Project (August 2016)
- Jeff Bennett, Peer review of the Expert Review of Greg Houston (June 2016)
- Department of Planning and Environment – Drayton South Coal Project (SSD 6875) Final Assessment Report (September 2016)

In preparing this review Marsden Jacob has interviewed broodmare owners and broodmare farms, and drawn upon previous submissions and reports.

Summary Points

Marsden Jacob's review finds that the:

- The economic analysis is biased in favour of the mine, because a number of key assumptions either over-estimate the benefits (e.g. coal prices and product coal) or under-estimate the costs (e.g. capital costs and externality impacts).

- The market impact assessment by Houston Kemp and Jeff Bennett are based on assumptions that don't reflect the fundamentals of the industry, as confirmed in our research into broodmare stud farms and broodmare owners.

Factual Corrections

Factual problems	Correction (refer to attachment for more detail)
The Department's report (2016) claims that Marsden Jacob's previous reviews are based on short-term spot prices, attributing this Jeff Bennett.	The Department is misreporting Professor Bennett and Marsden Jacob: • **Professor Bennett does not state that MJA used spot-prices.** • **Marsden Jacob's review does not use "spot prices".**
The Department's report (2016) claims that Marsden Jacob has commented on the financial viability of the mine.	Marsden Jacob has only considered the **economic viability** of the mine.
Bennett argues that "*Broodmare farms are essentially the 'buyers' in the market*" *and so they are the source of the agglomeration benefit*	Broodmare farms are **not the buyers** they are service providers to broodmare owners who are the buyers/customers, see Guihot (2016).
Bennett argues that "*stallion services, even of a very high breeding quality, are readily substitutable, mobile and can be established in a location at relatively low cost*"	Premium stallions are **very rare and expensive**. Independent industry experts refute this ease of substitution, for instance Guihot (2016) states that "*the departure of a significant pool of broodmares (3,000) will follow (Coolmore and Darley) with 100% predictability*".
Bennett states that "*the case of Edinglassie is used to demonstrate that another stud farm is able to continue to operate successfully in the near presence of an active coal mine (Bengalla).*"	**Edinglassie is a broodmare farm**, see Review PAC (2015)**.**

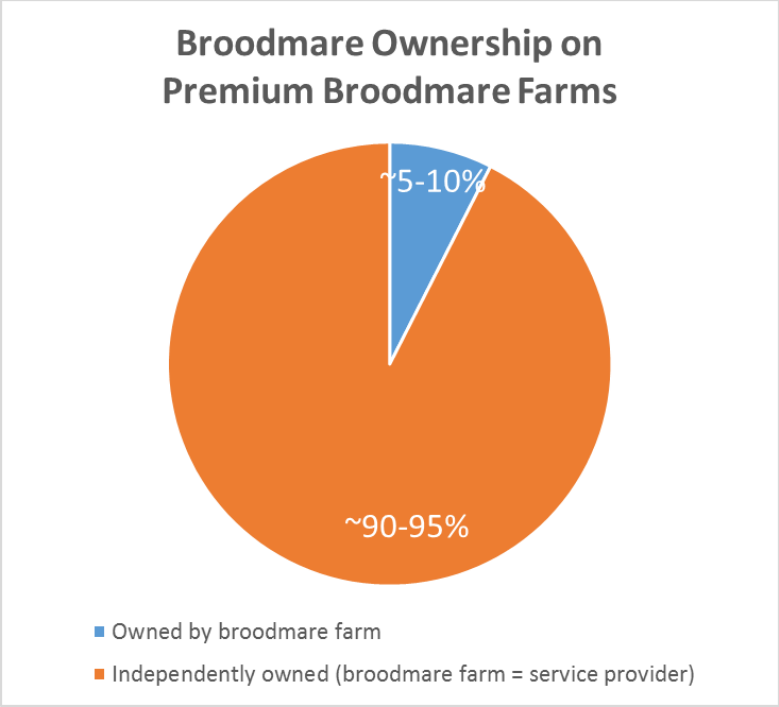
Coolmore and Darley are the cornerstone of the Hunter Equine Critical Industry Cluster

Houston Kemp, Bennett and the Department claim that if Coolmore and Darley leave the Upper Hunter the equine critical industry cluster (ECIC) would not be under threat because broodmare farms are the buyers and stallions are readily substitutable.

These conclusions are based on a number of flawed assumptions that don't reflect the fundamentals of the industry:

- Broodmare farms are service providers not buyers*, because broodmare farms only own around 5-10% of broodmares.
- Premium stallions are rare and expensive.

Broodmare farm operators and owners are unambiguous in their opinion, if Coolmore and Darley were forced to relocate: "*a significant pool of broodmares will follow with 100% predictability*".

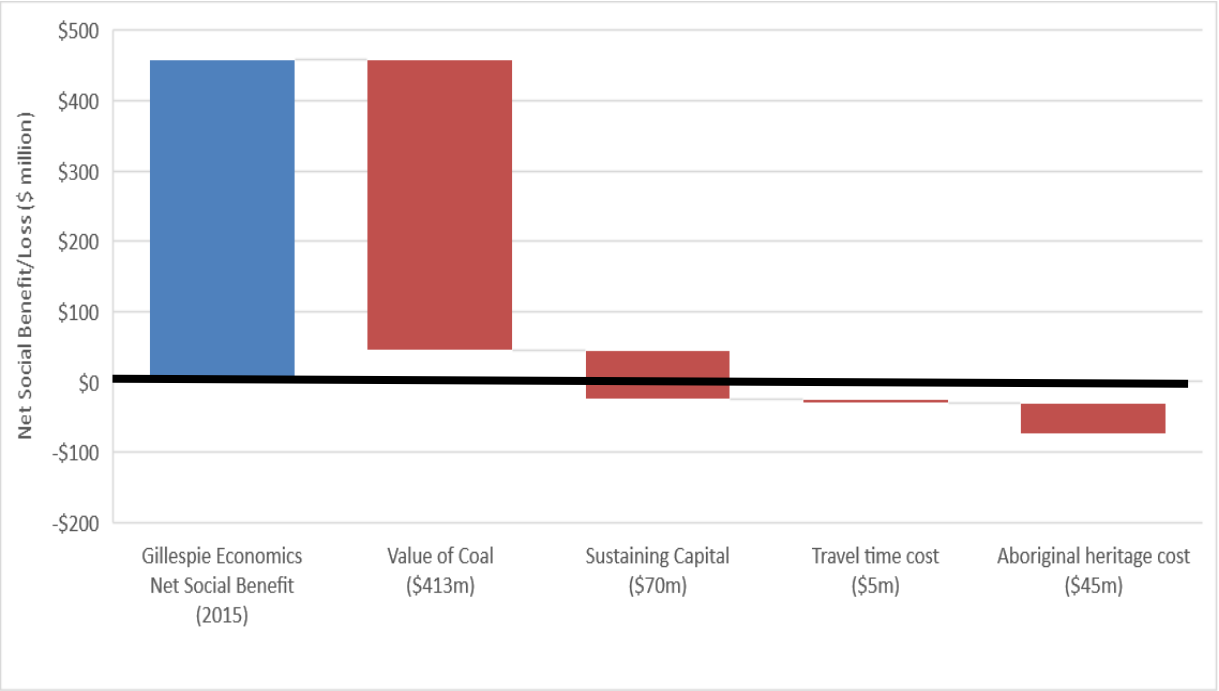


** Marsden Jacob has interviewed with broodmare farms and broodmare owners in the preparation of this review: (i) there are only 2 boutique broodmare farms that own all of their broodmares, (ii) broodmare farms only own a small proportion of broodmares (around 5-10%), the majority of broodmares are independently owned.*

Economic benefits of the projects are overstated

When the economic analysis is re-estimated the Drayton South coal mine results in a net social loss of at least $75 million:

1. long-run average coal prices (-$413 million PV)
2. capital cost (-$70 million PV)
3. travel time externalities (-$5 million PV)
4. aboriginal heritage (-$45 million PV)



Review PAC (2015) agreed:

- ***"net economic benefits of the project are optimistic and are likely to have been overstated."***
- *"**assumptions are favourable to the Applicant's case,** and the **BCA has excluded some potential costs** such as impacts on the horse industry, impacts on the environment (including cumulative human health), Aboriginal cultural heritage, and landscape/tourism impacts." (PAC 2015 page 25).*

Economic benefits of the projects are overstated

This calculation is conservative because it excludes a number of values that have potentially been misestimated, such as:

1. reduced value of coal if product coal tonnes are over-estimated (>$0.5 billion PV)
2. state impacts that would emerge if Coolmore Australia and Darley Australia are forced to relocate interstate (up to $368 million PV)
3. additional rehabilitation costs (~$20 million PV)
4. other externalities, such as water and greenhouse gases

In conclusion

Without economic diversification regional economies are highly vulnerable to shocks that are outside their control, such as climatic events and commodity price changes.

- Coolmore and Darley's stud operations represent **over 50%** of the average annual income from stallion service fees in NSW and the Hunter Valley.
- Coolmore and Darley **directly employ over 220 people**.
- If they were forced to depart this would very conservatively put **640 jobs at risk in the Hunter Valley** across broodmare farms, veterinary hospitals, transport, farriers, saddlers, capital equipment, hospitality, and construction businesses that are not supplying the mines.
- Extract **over $120 million per annum in gross regional production** from the local economy.

How can the PAC have confidence in the results of the economic analysis and market impact assessment, when our review identifies that:

1. Drayton South is not economically beneficial.
2. The market assessments that have been undertaken are based on flawed assumptions that do not reflect the fundamentals of the thoroughbred industry.
3. If Coolmore Australia and Darley Australia are forced to relocate this will fragment the Hunter Valley's equine critical industry cluster and amplify the vulnerability of the region to economic and climatic shocks.

Attachments

Factual Corrections

Factual issues	Corrections Additional points
The Department's report (2016) claims that Marsden Jacob's previous reviews are based on short-term spot prices, attributing this to Professor Bennett: *"Professor Bennett states that the recent recovery of coal prices demonstrates why MJA's assessment of the short term spot-price is not appropriate for calculating the project BCA"*. (page 17)	The Department is misreporting Professor Bennett and Marsden Jacob: 1. **Professor Bennett does not state that MJA used spot-prices.** 2. **Marsden Jacob has never used "spot prices".** Marsden Jacob believes that, given the price uncertainty for thermal coal, a long-run price for coal should be used. Based on a number of public sources this would appear to be around $85-90/t (real) over the 1995-2016 period. Whereas, Anglo American has assumed $102/t.
The Department's report (2016) claims that Marsden Jacob has commented on the financial viability of the mine, attributing this to Professor Bennett.	The Department is misreporting Professor Bennett and Marsden Jacob: 1. Marsden Jacob's report clearly states that ***"Marsden Jacob has not assessed the financial viability of the proposed Drayton South open-cut coal mine."*** (page 1) 2. Prof Bennett states *"external studies that suggest the Project will not earn a profit (as distinct from generate a net social benefit) are poorly founded"* (page 6). This statement by Professor Bennett makes no reference to Marsden Jacob.
Bennett argues that *"Broodmare farms are essentially the 'buyers' in the market"* (page 4) and *"Sellers gain a competitive advantage by locating in a position that is closer to more buyers."* (page 3)	This is the critical assumption that underpins Bennett's conclusions, but it does not reflect market realities. **Broodmare owners are the buyers in the market, not broodmare farms.** Broodmare farms are a service provider in the market because most broodmares are independently owned and their owners are mobile in their decision making. This has been confirmed through direct discussions with broodmare owners and the submissions by Darryl Guihot. These broodmare owners may have some loyalty to their broodmare farms that care for their mares, but fundamentally they will ensure that their broodmares follow the stallions: *"if Coolmore and Darley relocate their stallions interstate … I will simply move my mares to that same location"* (Guihot 2016 page 4).

Factual Corrections, continued

Factual issues	Corrections Additional points
Bennett argues that *"stallion services, even of a very high breeding quality, are readily substitutable, mobile and can be established in a location at relatively low cost"* (page 5).	Industry experts attest that **establishing stallion services of a very high breeding quality is very difficult**. Guihot (2016) argues that key barriers include: (i) it takes around 5 years (at least) to prove a stallion, because it take this long for its progeny to reach racing age; and (ii) acquiring new premium stallions cost tens of millions of dollars. Guihot identifies that So You Think and Vancouver are understood to have sold for $60m and $40m, respectively and these are the 9th and 16th most expensive stallions in Australia.
Bennett states that *"the case of Edinglassie is used to demonstrate that another stud farm is able to continue to operate successfully in the near presence of an active coal mine (Bengalla)."*(page 6)	**Edinglassie is not a stud farm**. Edinglassie is a broodmare farm, the business model for which will be different to a stud farm. *"Edinglassie Stud does not undertake covering on site, nor does it receive visiting mares on the property for covering."* (Review PAC 2015, page 41) *"Edinglassie stud is owned by BHP"* (Review PAC 2015, page 48).
Bennett finds that substitution would emerge and mean that the Hunter Valley ECIC would not be affected. The Department acknowledges a short-term shock but then says in the medium to long term substitution will emerge. Houston argues that if Coolmore and Darley relocate interstate the broodmares will not relocated because the remaining Hunter Valley studs will put on extra stallions or mate their existing stallions more frequently.	**Independent industry experts refute this ease of substitution**, for instance Guihot (2016) states that: • *"There are no material barriers to relocation of the stallions or mares"* (page 6) • *"the departure of a significant pool of broodmares* (3,000) *will follow* (Coolmore and Darley) *with 100% predictability"* (page 7) • *"competitor studs* (to Coolmore and Darley) *are currently unable to source as many as three viable new stallions each year between them on average, so sourcing their present average and somehow finding another six would represent a more than 300% lift on current activity. This could only be done by sourcing stallions of such reduced quality that broodmare owners would have no interest".* (page 10)

Coal Prices

If the assumed price, as originally stated in the Gillespie Economics report, is used (AUD$87 per tonne) this would be more believable and would accord with a variety of public forecasts:

- Secretary's Environmental Assessment Report: *"NSW Trade & Investment, which forecasts that the medium and long term export thermal coal price is likely to be between US$67 and US$88 a tonne (assuming an AUD/USD exchange rate of 0.75)"* (2015, p47)

- Deloitte Access Economics has previously modelled a second scenario *"based (on) $74 (AUD) a tonne, equivalent to the long term average coal price (World Bank 2012)."* (2013, p28)

- UBS Securities Canada Inc. has released a research report titled North American Coal Industry – 2016 outlook: black as coal (2015). In this report, UBS cuts its long-term (2020) seaborne thermal coal real-price forecasts by 33% to USD$55/mt (see Table 5) , about AUD$73/mt. UBS is the stated source for the consensus forecasts in the Gillespie Economics analysis (2015, page E-25).