Greetings once again!

We are now through the summer season - a particularly troublesome time for hot, dry winds and airborne dust. We water our roads regularly throughout the day as required in dry spells and use dust suppression sprays wherever we can, but we still had a number of incidences of dust-in-eye over the last few months. If this happens to anybody onsite or in the surrounding community, please make sure you seek help – immediate flushing of the affected eye with clean water after removal of any contact lenses is paramount, and any continuing irritation should be professionally treated.

For your information, at the end of this newsletter is a detailed report on the dust, noise and vibration monitoring that Kanmantoo undertakes regularly, within and on the perimeter of our mining lease as well as near our closest neighbours.

As we enter April, Hillgrove is continuing to ramp up production at Kanmantoo, and while we haven’t yet hit our full production target-rate of 2.4 million tonnes p.a., current progress suggests we will do so in the next month or so.

The Processing team looks to have ironed out the majority of the wrinkles in the plant, but our primary crusher remains a source of concern, with low operating availability at present. A number of specialists have given us pointers as to what needs to be done, and we will shortly call for tenders to undertake a formal review, including the design and development of appropriate fixes. In the meantime, our new mobile crusher is expected to reduce pressure on the main crushing plant and help us meet requisite throughput goals.

Fragmentation (broken rock size after blasting) in the pit has improved, however I expect it to improve more over the next couple of months, further alleviating the pressure on the crusher.

Our concentrate haulage seems to be working well with Whittams trucks taking care to operate outside of school pick-up and drop-off times during the day. The first truck generally leaves the site for the port at around 6am and we are currently moving about 6 - 9 containers per day (with an expected peak of 10).

Our exploration on the mining lease continues to be very promising, with the drilling around Paringa looking to ultimately add significantly to the resources at Kanmantoo. We are aiming to extend the project’s mine life to at least 10 years over the next year or two.

The next few months will be an exciting time for Hillgrove, as we expand production at Kanmantoo and early results of our exploration at Kanmantoo and both exploration properties in Indonesia come to hand.

Drew Simonsen, Managing Director
Hello all,

Time is certainly flying now that we are ramping up our production close to 100% of our planned capacity. First of all, I want to congratulate and thank our workforce for the high levels of commitment and dedication shown as we have continually strived to improve our performance over the last four months since start up.

Our copper concentrate production has steadily increased each month from 329 tonnes in November, to 2,143 tonnes in December, 2,302 tonnes in January, 3,039 tonnes in February, and now up to 3,681 tonnes in March. This is certainly the result of a fantastic effort by all involved.

We have been trucking between 6 and 9 loads of copper to Port Adelaide per day and this culminated in our first export shipment leaving the port on the 10th March. Our next shipment is scheduled to leave towards the end of April.

As well as mining and producing copper at Kanmantoo, we have been continuing with exploration activities on our mine lease. I am very happy to be able to advise that we have been highly successful with this program finding wide, high grade zones of copper mineralisation outside our current planned mining areas.

It was a pleasure to host the Premier of South Australia, Jay Weatherill, our board members and other special guests at the official opening of the mine on the 22nd February. This was truly a wonderful day and the culmination of many years hard work to achieve this milestone.

We recently held our quarterly Kanmantoo – Callington Community Consultative Committee meeting in the Callington Hall. This was well attended by both our staff and community members. I thank all who attended and for the constructive discussion and feedback. You will see some more detail of the material discussed later in this newsletter.

Once again, I’d like to thank not only our workforce but also the communities in which we operate for their support of our activities. I look forward to providing further updates of our achievements in the coming months.

Best regards, Cam Schubert, General Manager – Kanmantoo Copper Mine

The meeting held on Thursday 29 March was very well attended by both the community and our staff who were available to provide detailed answers to questions and to provide an update on recent activities at site.

A significant portion of the meeting was spent reviewing initiatives undertaken by Hillgrove in regard to Noise and Dust Monitoring. It was requested that information provided at the meeting be summarised and included with this newsletter, which is attached at the back.
The Kanmantoo Copper Mine was officially opened by the Premier of South Australia Jay Weatherill on the 22 February. The occasion provided an opportunity for Hillgrove to invite many of the key companies, community members and staff who have been involved in the planning and development of the project over the past 10 years and to thank them for their hard work and dedication.

There have been many milestone events which led to a producing mine and ultimately this occasion, and these were outlined by the keynote speakers: Hillgrove’s Chairman The Hon. Dean Brown AO, the Premier, and Drew Simonsen our Managing Director. The Premier was keen to attend this special occasion, and in his address stated his belief that the mining boom is a keystone in the plan to revitalise life in South Australia.

The logistics of moving 100 guests and media around a closed site with strict safety rules was challenging, but the day went extremely well and we were blessed with excellent weather which permitted bus tours of the production and mining areas. With the teams so focussed on completing the ramp up of the processing plant, it was important to encourage all involved in bringing the project to fruition to stop and pat themselves on the back for their efforts in bringing the concept of our mine into reality.
New Mobile Crusher

The company purchased a new Lippmann 3252 mobile crushing plant in mid-March, which has greater size-handling and throughput capacity than the current fixed jaw crusher installed during construction last year, which has suffered from availability and performance issues.

Investigations are progressing as to what we can do to improve the performance of our fixed jaw crusher, as this is such a critical piece of equipment in the overall operation of the processing plant. The decision was made to supplement our crushing capacity with the new mobile crusher.

We are sensitive to our surrounding community, and after the blasting incident in August last year, our blasting practices have been reviewed and changed resulting in more oversize material. As with any mining operation in the early stages, we are gradually improving fragmentation whilst maintaining compliance with our lease conditions. This is a balancing act and will take some months to optimise.

The new mobile crusher is expected to help address the oversize material and add capacity, but proved timelier than expected. Shortly after the mobile crusher arrived we experienced a failure of the crown gear in the secondary cone crusher - a very unusual event. By using the Lippmann crusher and by-passing the existing crushing circuit to direct-feed to the mill, plant feed was able to be maintained, although at reduced mill throughput for the month.

With the secondary crusher now back on-line, crushing circuit improvements underway, and with the help of the mobile crusher and improved fragmentation, we will be targeting 100% of design throughput, or 200kt, though the mill for April.

Playford Scholarship Recipient

As part of our commitment to supporting the education and development of South Australians, Hillgrove provides a sponsorship through the Playford Trust (www.playfordtrust.com.au) for students in their Honours year of tertiary study. The 2011 recipient of this scholarship was Hayden Arbon, who undertook a project on the distribution of Bismuth (a mineral) in the ore at Kanmantoo.

Recognising the potential of this young graduate, Hillgrove offered Hayden a position at the Kanmantoo Copper Mine as a Graduate Geologist. Since commencing, Hayden has been immersed in the daily tasks of mine geology such as mapping the pit walls and floor, logging blast-hole collars and analysing grade control data to produce ore block outs and dig sheets. These are all vital tasks in providing direction to the mining department and ensuring waste and ore is delineated in the pit, and ore is delivered to the processing plant. Hayden has also been involved in various special projects such as rock density sampling, generating three dimensional geology models in our Surpac software system, and using X-ray fluorescence to measure bismuth grades in old borehole pulps.
Playford Scholarship Recipient cont.

As part of Hayden’s graduate development program, he has spent time with the mining department and in the processing plant in order to gain a full appreciation of what is involved in copper production from open pit to concentrate shed. He will also be exposed to mine surveying, mine planning, drill and blast, geotechnical engineering and hydrogeology activities over the coming months.

Hayden’s next stop will be with the exploration team to learn about the discovery and evaluation of mineral resources. By the end of his graduate training, he will have had a broad exposure to the role of geology in the mining business and will be ready to fulfil the roles of either a Mine or Exploration Geologist.

Australia’s skills shortage is real. Programmes such as these fill a crucial gap by encouraging students to become involved in the mining industry, and then after graduation, helping them to gain experience through practical training and mentorship.

We welcome Hayden on board, and hope that he and future recipients truly benefit from the scholarship and have long and fruitful mining careers.

 Alan Day, Technical Services Manager

What They’ll do For a Good Cause...

Hillgrove took part in the Mine Challenge for the Leukaemia Foundation’s World’s Greatest Shave on the 16 March. The 7 employees who participated from site and Head Office were surprisingly willing to consider colouring, shaving and even waxing their hair for a worthy donation!

Sponsorships and extra fundraising events were held on site leading up to the shave and additional donations sought on the day with offers of bonus shaving and waxing. We had great support from all our employees and many hands went up for the extra donations, which resulted in the fabulous Mohawk, Number ‘0’ and Clown Cut in our photo below.

Hillgrove had set a goal of $2,000 and we nearly doubled that by reaching $3,964.65!

Chrissy Pavlakis, the Business Relationship Manager SA, from The Leukaemia Foundation joined the festivities at the Kanmantoo site for the day and was very impressed by the level of participation and resulting donations. The money raised from the event will go towards a new $9 million South Australian Patient Accommodation Village, where the Foundation will provide free accommodation to patients and their families, for anywhere from two months to two years.

No names as clearly some of our participants are trying to go incognito!
**Staff Member Profiles - Hayden Arbon & Heather Tucker**

G’day all, I joined Hillgrove in January as a graduate geologist, after paying my way through university by working as a nightfiller at Woolworths. I’m very happy to be working in the field I studied. Last year I completed Honours in Geology at Adelaide University with my project based on the mineralisation of the Kanmantoo deposit so I was often up here. After working with the team I began to appreciate the smaller mine environment and was keen as mustard to begin my career in the same location. The close proximity of the mine to Adelaide was also a large factor in applying here, being relatively close to family and friends.

When not working I’m usually playing or watching sports: cricket and hockey, and also a passionate drummer, often annoying the neighbours on my much-loved kit. When I’m not doing any of these, I’m usually catching up with mates or family.

I’m currently living in Payneham with a relative, and my attempts at saving to buy a small place nearby are not going quite as smoothly as hoped - especially since I am also thinking about travelling during my annual leave which won’t help. But after two months of being at Hillgrove I’m very happy with where I am, and looking forward to doing my part to continue the Kanmantoo site’s success. Cheers!

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Hi my name is Heather Tucker and I live locally at Langhorne Creek with my husband Kym. While taking a break from employment I was asked to take on a six week contract as an accounts assistant with Hillgrove in March 2011 and was lucky enough to be offered a twelve month contract in December 2011.

My previous employment has varied from Laboratory Technician, owner operator of a newsagency for twelve years, site supervisor for AusBulk at a bulk grain facility and a logistics position in the wine industry, so this position is a bit of a change. Maybe a little challenging at times with the accounts program, Minepoint, but I am enjoying the very friendly atmosphere of the Hillgrove Family and hope to be a part of this great project for a long time to come.

In my spare time I enjoy gardening, crafts and playing with my beautiful granddaughter Maisy and just generally relaxing.

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**How To Contact Us**

There are many ways to stay informed about progress at the Kanmantoo Copper Mines, or to seek additional information.

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<thead>
<tr>
<th>Role</th>
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<th>Phone Numbers</th>
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The Kanmantoo Copper Mine section on our website provides information on all aspects of the operation, the team, the history and past copies of the newsletter. The direct link is [www.hillgroveresources.com.au/section/Projects/Kanmantoo](http://www.hillgroveresources.com.au/section/Projects/Kanmantoo).

As the communities where we work are so important to us we have dedicated a section of our website to activities in the area at [www.hillgroveresources.com.au/section/Community/Kanmantoo_Community](http://www.hillgroveresources.com.au/section/Community/Kanmantoo_Community) and the community committee. Under the Kanmantoo Committee section you will find details and minutes of previous meetings of the Kanmantoo Callington Community Consultative Committee.

Employment opportunities and details for Kanmantoo are at [www.hillgroveresources.com.au/section/Careers/Kanmantoo_Employment](http://www.hillgroveresources.com.au/section/Careers/Kanmantoo_Employment) but note that we have completed our recruitment program and are not taking expressions of interest at this stage due to our large waiting list.

Department for Manufacturing, Innovation, Trade, Resources and Energy (DMITRE is the new PIRSA), the government body that regulates mining and exploration in South Australia, and has a website at [www.pir.sa.gov.au](http://www.pir.sa.gov.au) that provides a wealth of useful information; including the [Mining Act 1971](http://www.pir.sa.gov.au), prescribed forms, mines regulation and other details or contact: Hans Bailiht 08 8463 3107 [Hans.Bailiht@sa.gov.au](mailto:Hans.Bailiht@sa.gov.au).

To register for the newsletter please go to our website and fill in your details under the Projects/Kanmantoo/Newsletter section and click here. The direct link is [http://www.hillgroveresources.com.au/survey/Kanmantoo_Community/Register_for_the_Kanmantoo_Newsletter](http://www.hillgroveresources.com.au/survey/Kanmantoo_Community/Register_for_the_Kanmantoo_Newsletter). And if you are receiving the Newsletter by mail and would prefer a far speedier emailed version in future please register or email lisa.saw@hillgroveresources.com.au.
Environmental Monitoring Report

While Hillgrove is sensitive to community concerns about noise, dust, vibrations and light spill at night from our operations at the Kanmantoo site, it is not possible for a mine to operate without some impact, as do other businesses in the district, such as farms. That being said, we seek to always be compliant and within the regulatory terms of our mining lease, and where we can, we will examine opportunities for further reductions.

Noise

The Operating limit for noise generated by the Kanmantoo site to sensitive receptors is 50 decibels during the day, and 43 decibels for night time noise (between 10pm and 7am) for receptors surrounding the mine, but outside the township is lower at 47 decibels during the day and 40 decibels for night time noise.

Quarterly noise monitoring has been carried out for the Hillgrove Kanmantoo Copper Mine site on five occasions, in addition to monitoring undertaken in response to specific complaints.

All our noise monitoring is undertaken by independent expert acoustic engineers; not Hillgrove employees. Results are also interpreted independently of Hillgrove.

- The first three occasions (1 April, 24 April and 1 August 2011) monitored the noise from construction activity at the site. The measurements are detailed in Sonus Report S2598C18 dated 11 August 2011 (which is attached to our annual compliance report, MARCR, on the DMITRE website www.pir.sa.gov.au), with outcomes as follows:
  - The measured construction noise levels complied with Kanmantoo’s regulated relevant environmental noise criteria on all but one occasion.
  - The one occasion where construction noise was measured to exceed the criteria was adjacent to residences on Back Callington Road, due to mobile equipment on the southern side of the tailings dam operating during the night. In direct response to this measurement, Hillgrove altered activities to ensure this did not recur during night hours.

- With the change from construction to operations, the most recent occasions (8 December 2011 and 19 March 2012) monitored noise from operational activities. The measured levels complied with our relevant environmental noise criteria at all but one location (Receiver 7) on one occasion (19 March). Weather conditions during the measurement were very conducive to noise propagation towards this Receiver. No results were recorded for Receivers 8 and 9 in February as high winds were louder than mine noise, but discussions with receptors in this locality indicated there was no nuisance factor associated with noise in general from the operation.

Figure 1. Measured Noise Levels At Sensitive Receptor Sites
Figure 1 demonstrates that noise from the mine complies with regulated limits. These limits are now lower for the operational period than they were for the construction period which ended in November. In response to complaints from residents in the Kanmantoo township an additional continuous noise logger (as distinct from spot measurements) was installed to record and measure every sound for a 100 day period. Results from the logger have been analysed and in particular compared against times when complaints were received. The results demonstrated that the mine operation was, at all times, in compliance with its regulated noise limits.

The Kanmantoo mine will produce noise, but we aim to minimise this noise to the extent we can, and remain within our regulatory limits. Hillgrove continues to review further reasonable means of reducing noise although there is no regulatory requirement for this. Some options under consideration include the construction of a sound-mound and/or acoustic shielding.

**Dust**

We are very sensitive to community concerns about dust generation at the site. Hillgrove will produce dust at Kanmantoo, as there is no way that we can operate the necessary equipment effectively without doing so, however we seek to remain compliant within the terms of our mining lease and to minimise dust generation where we can.

Dust has been an issue for the mine operation and some neighbours, particularly during high wind days. Our monitoring results to date have shown that on the days when dust complaints have been received, dust has generally been a wider problem in the region, and has been generated by multiple sources.

However, we recognise that with so many open mine areas currently on the site and the nature of our activities we are contributing to an increase in dust. Continuous sampling Dust Deposition gauges surrounding our site measure the deposition of dust on the perimeter of the mining lease, as well as on the outskirts of Kanmantoo. We also have two high volume samplers that collect dust samples every six days for analysis.

Some days in the region are generally dusty so our monitoring seeks to measure the dust generation the project alone contributes to the environment. Accordingly, we measure dust levels against a dust monitor up-wind of the Kanmantoo mining operation in Carmen's paddock (blue line in Figure 2 below).

Figure 2 shows the results of our continuous sampling Dust Deposition gauges. The green line shows our regulated government limit of 4 milligrams (mg) of dust per square meter per month. However, when the day is generally dusty we are required to add no more than 2mg per square meter per month above the level recorded at the up-wind monitor.

*Figure 2. Continuous Sample Dust Deposition Gauges*
During one period when we received complaints from our neighbours, our dust suppression activities were hampered when we lost our supply of recycled water from Mt Barker Council that is used in our water trucks (as explained in the previous newsletter and repeated below).

... we also had some issues with the reliability of our recycled water supply. This meant we ran out of water for dust suppression some days and consequently shut down the mining operations so as not to make the situation worse, but when 45-85km/h winds are added to the problem this did not assist matters. However, we are pleased to report the water supply issue has been fixed and on site improvements in water storage and management should ensure an uninterrupted supply of water for dust suppression in future.

As you can see from Figure 2, the two periods between 21 October and 23 December each exceeded our limit of 4mg of dust per square meter per month – **but the level of dust entering our site was already high before it got to us.** On each occasion, we added less than our limit of 2mg per square meter per month, and for the first period dust actually settled on our property with less in the air that left than entered.

Even though we are compliant, Hillgrove recognises that we do add dust to the environment, and need to do as much as we reasonably can to reduce our contribution regardless of our compliance with lease limits. Dust suppression technology has been trialled on the site, with both products performing similarly, and may be suitable for application in some areas by providing adhesion of the surface (like glue). This material, however, is both very expensive and very fragile – the surface is easily broken.

Five community members contacted us to raise concerns about the content of dust settling on their roofs and then washing into their rain water tanks. Water samples were taken from these tanks and delivered to the Australian Water Quality Centre and assessed against rain water used for drinking guidelines. All results returned from the laboratory for heavy metals such as, copper, lead, zinc and iron had results that were below detectable limits or less than half the allowable limit. **However, bacteria levels (not associated with mining activity) generally attributable to animal faeces (e.g. possums, birds, rats, mice) were very high and well above drinking guideline limits.** This should be a reminder to us all that drinking water from our rainwater tanks is not necessarily pristinely pure and that some form of chlorination or treatment may be necessary.

**Blasting**

Our blasting operations can produce vibration (felt as a rumble through the ground), and “over-pressure” which is a pressure-wave – not dissimilar to a tidal wave – through the air (felt by the rattling of windows).

Vibration diminishes rapidly with distance from the source. Overpressure does likewise but at a slower rate, although it can be reduced by intervening vegetation and topography.

**Figure 3. Vibration Monitoring Results**
Our vibration limits at site are 5 millimetres per second for residences and 25 millimetres per second for industrial sites.

In Figure 3 the green triangles must be below the purple line (residential limit) while the red squares must be below the blue line (industrial limit). The light blue diamonds are days when people called to let us know the “vibration” (may have been vibration or over-pressure) at their residence was strong, with the number of enquiries measured against the right hand axis of the graph.

Since we commenced operations, blasts on site have complied with limits set for vibration with the exception of one (as detailed in our September 2011 Newsletter). The graph shows the non-compliant blast of August last year when we ceased blasting operations until we could ensure tighter control of blasting.

**Light**

Our mining operations are licensed to run 24 hours a day, 365 days per year. At night, for safety reasons, we must operate with the aid of portable lighting towers. Because of the nature of our operations, some of these towers may need to be moved during the night. When they are moved as required, they are not always moved by the same personnel, who may differ from shift to shift, and also within a shift so light spill will vary.

We are aware of the impact that our night-time safety lighting may have on our neighbours, and seek to direct the lighting away from local establishments, although this may not always be possible.

Any queries regarding environmental or other information contained in this report should be directed to Catherine Davis, our Community Liaison and Environment Manager whose details are noted at the back of the newsletter.