



Queensland Government

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| Mine Name           | Mine ID | Operator  | Activity Type | Activity Date |
|---------------------|---------|---|---------------|---------------|
| Grosvenor Coal Mine | MI02976 | Anglo Coal<br>(Grosvenor<br>Management) Pty Ltd | Site Meeting  | 19/03/2018    |

Our Vision: **Zero Serious Harm**

## Mine Record Entry

***This report forms part of the Mine Record under s68 of the Coal Mining Safety and Health Act 1999. It must be placed in the Mine Record and displayed on Safety Notice Boards.***

***Note that inspection or audit activities conducted by the Mines Inspectorate are based upon sample techniques. It remains the primary responsibility of Mine Personnel to identify hazards, and risks associated with Operations and ensure those risks are at an acceptable level.***

Today, Monday 19 March 2018, Inspectors Marlborough, Brown and Gouldstone held a meeting commencing 1:10pm with the Mine personnel below.

### 1.0 Initial Meeting

Mr Marc Kirsten SSE (part of the meeting to 2pm)

Mr Cec Ivers UMM

Mr Trent Griffiths TSM

Mr Michael Webber VO

Mr Wouter Niehaus Compliance Superintendent

Mr Matt Ramsey Drilling Superintendent

Mr Ian Hawkins Seam Gas Manager

The meeting was called at the request of Inspector Marlborough to discuss the recent 27 exceedances of 2.5% methane in the LW102 TG. Mr Marlborough had in the lead up to this meeting discussed with the Mine the following issues :-

- Baling goaf holes with a make-over rig as they pass over the TG drive until they start to connect with workings (would need to be risk assessed)
- Drilling holes closer to top of coal seam, 5m compared to 20m previously drilled
- Considering cutting Uni Di to try to reduce goaf flushing

- Consider lowering trip levels below the current 2.% (trip haulage if shearer at 130 to TG area) and 2.5% (trip power to shearer wherever shearer located on face)
- Can the air around the “bleeder road” be reversed and this would allow suction to be applied to inertisation lines through the perimeter goaf seals on the TG side of the bleeder to draw the methane fringe away from the TG end of the face
- Reducing shearer cut rate during low barometer periods to reduce methane make and give ventilation a chance to remove the gas
- Horizontal goaf holes, either from surface or UIS drilled from MG
- Consider using half web when cutting TG to reduce caving actions which result in flushing methane out into TG

## 2.1 Matters Raised by the Mine staff

- Drainage boreholes of varying designs had been drilled however the latest five were not productive. One hole was producing gas but, due to the high purity of Methane it was believed that this hole was draining gas from the overlying P seam and not the active goaf
- The pattern of holes used in LW101 have not proven to be successful in LW102. i.e. The distance from chain pillar rib, height above seam, casing and diameter of holes
- No significant differences had been encountered during drilling LW102 compared with LW101
- Examination of goafholes were showing that swelling at the GU seam was being encountered at the 232m depth to 282m area
- Adjacent exploration borehole logs were examined to see what could be learned

Mud characteristics have not changed

- Examination of subsidence profiles has been undertaken
- Installation of a forcing auxiliary fan for more air into TG for access during maintenance shifts was discussed. Inspector Marlborough indicated this would require a methane sensor inbye of the ducting closer to the TG drive if it was to encroach into 400m from the return end of the longwall

Inspector Marlborough stated that he would expect that the use of this fan would reduce air quantity through the face. Mr Webber agreed that the trial conducted the previous week gave approximately 12 m<sup>3</sup>/s at the end of the ventilation duct (1400 m in TG) but the air quantity across the face was reduced by 10 m<sup>3</sup>/s.

## 2.2 Other options discussed during open forum

- Cutting intake methane pollution by spraying the ribs in the bleeder road with shotcrete. It was obvious from the Citect screen that the MG Methane monitors on the LW were reading approx. 0.45%. This is intake contamination from rib emissions in the bleeder road
- Cutting the ventilation quantity through the longwall reducing the goaf wash and the venturi effect of the high air velocity across the Longwall. Currently 80 m<sup>3</sup>/s across the Longwall face
- Revising the approach to controlling shearer speed to avoid trips.
- Reconsidering if the bleeder could be made a return. Inspector Marlborough requested a copy of the Ventsim model which was the basis for the Mine decision to discount this option and the Ventsim model for the use of the auxiliary fan in the TG
- Grouting holes at the GU level and drilling through the grout so that the grout could provide support to the holes
- Casing the holes through the GU zone
- Review hole positions in relation to TG chain pillar rib

It was appreciated by the Inspectors that the Mine were continually seeking solutions but the basic problem was that methane holes were not sufficiently productive. The longwall needs to retreat further before the currently revised borehole design changes can be seen if they are effective.

## 2.0 Close-out Meeting

This was attended by the Inspectors plus Mr Ivers, Webber and Griffiths.

Inspector Marlborough made the following points –

1. The Gas Management Audit planned to commence today would be postponed until the Mine had overcome the current gas management problems.

2. Consideration to be given to a reduction in ventilation quantity through the longwall.
3. The Mine should reconsider its logic in regard to not tripping power to the shearer until 2.5% methane is reached and only to stop hauling at 2.0% when the shearer is between 130 shield and the TG leaving power to the cutter drums. Why wait until the methane reaches 2.5% (and hence has the resulting HPI) before tripping power to the shearer. The standard for all other Methane monitors is to trip power at 2.0% or less. Is allowing the TG monitor to reach 2.5% before power is tripped achieving an acceptable level of risk?
4. The General Body Contaminants TARP has this action for the LW ERZ Controller - *If the orange strobe has activated at the TG and shearer haulage has tripped (ie. if general body methane levels are between 2.0 and less than 2.5% in the TG roadway), assess the shearer operators ability to cut out the TG sequence (based on the Control Room Operator's gas information and trending).* The Mine should review this TARP condition and action. Does it give positive instruction on what is required to provide an acceptable level of risk? The Inspectors observed the LW on the Citect screen where the shearer cut up to 130 shield, with the TG Gas level at 2.3%, and knowing it was going to trip the shearer haulage, the operator continued to cut, without reducing shearer speed until the shearer haulage was tripped. It is Inspector Marlborough's belief that this is not a logical, risk based approach.
5. The Mine is continuing to use IMT to review the on-going exceedances, the first 7 having been investigated leaving the subsequent 20 to be considered in the same way.

**Richard Gouldstone**  
Inspector of Mines

**Les Marlborough**  
Inspector of Mines

**Paul Brown**  
Inspector of Mines