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| Mine Name | Mine ID Operator | Activity Type | Activity Date |
| North Goonyella | MIOI 157 PEABODY (BOWEN) PTY LTD | Inspection | 30/05/2018 |

Vision: Our Industries Free of Safety and Health Incidents

# 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, Wednesday 30 May 2018, arriving at 8am Inspectors Richard Gouldstone and Les Marlborough conducted an announced inspection at NGC.

1.0 Introduction

We were met by Mr Marek Romanski (UMM) and had expressed our intention, the previous day, to inspect both Longwall 9N and Development IOS. We proposed to include in the inspection the practical elements of the Gas Management Audit which had been deferred for reasons explained in the MRE of yesterday 29 May 2018.

There were also issues discussed yesterday with Mr Romanski and his team (Dan Harrington, Neville Impson, Gavin Shields & Chris Rogers), not in that MRE which are related here.

1.1 Methane in excess of 2.5% in a development not reported as HPI

Inspector Marlborough had received a report from a complainant that an oxygen level of only 5% had been detected in a development with a suggestion that unauthorised personnel had ventured into the heading concerned. Discussions took place with an official involved which clarified without doubt what had occurred. There was a layer of Methane above head height which the official involved had used to demonstrate the hazards of such an atmosphere to the coal mine workers who were assisting with the degassing of the heading. Mr Romanski arranged to report the matter as a HPI. The detail will be added to the Mine Record and as such is available to any CMW at the Mine.

Inspector Marlborough stressed, for the sake of clarity, that any general body reading where methane exceeded 2.5% where controlled ventilation is required must be reported as an HPI. This is regardless as to whether or not people are withdrawn as a result of the gas. In this case where ventilation was lost because of power loss to the auxiliary ventilating fan, the brattice wing erected to provide an atmosphere < 2.5% methane had not been effective and as such was a failure of ventilation.

Further the barricading and signage to be provided where an irrespirable atmosphere was measured, albeit as a roof layer, must be of robust construction to prevent access inadvertent or otherwise.

1.2 Single Entry arrangements

The Mine explained that numbers inbye Longwall 9N to 10 N and the Bleeder fan were limited to 9 persons all of whom must carry a portable gas detector. Inspector Marlborough reminded those present that all persons carrying a detector shall be trained and authorised to do so. He also indicated that the following matters must have been given attention in the risk assessment;-

 Road conditions should always guarantee egress for personnel in an emergency

* Include limitations based on risk of activities being undertaken and the maximum number of people allowed in the singe entry.
* Consider to include the presence of a ERZ Controller in the single entry whenever work is being undertaken.

It was explained that any water accumulation at the inbye end will need to be dealt with before holing the face road or bleeder road to make a ventilation circuit. Failure to do so may result in inrush type circumstances.

## 2.0 Mine Inspection

The Inspectors were accompanied Underground by Mr Romanski and Mr John Fitzpatrick (Shift Superintendent).

2.1 Surface observations

Inspector Gouldstone reviewed the ERZ Controllers' statutory inspection reports. The standard of reports showed continued improvement and he did not find any items that were written in production reports that should have been included in the statutory reports.

Inspector Marlborough raised concerns over the availability for statutory reports to be viewed by coal mine workers prior to proceeding underground. A discussion was held with Mr Romanski and Mr Fitzpatrick regarding displaying the reports in a way which would facilitate coal mine workers being able to view the reports prior to going underground. A recommendation was made for the Mine to review their system. Inspector Marlborough also suggested that the Mine consider including a box on the statutory inspection reports for the Process Superintendents, or their delegates, to sign to show that they had read the report. This is important to ensure that the process managers read the inspection reports to identify defects or hazards raised by the ERZ Controllers.

The board showing the correct colour code for lifting equipment stated that this was the colour for the next 6 months. It is actually the colour for the next 3 months.

2.2 Underground observations

## Longwall 9N

We then proceeded underground via the M&M Drift. It was noted that, in the M&M Drift, approximately half way from the surface to the mid drift passing bay there was a set of chain blocks set up on a pipe range, apparently holding a pipe joint together. This needs to be addressed by the Mine.

T ravelling in the main headings, the stonedust standards appeared to be satisfactory and the travel road was in a satisfactory state, Inspector Gouldstone and Mr Fitzpatrick went into the 9 North Longwall via the Tailgate and Inspector Marlborough and Mr Romanski went into the Maingate.

In the MG end of the 9N LW the entry to the single entry road behind the LW was observed. There was a tag board in place for persons to tag on to ensure the maximum numbers were not exceeded. There were stonedust "Bat Bags" installed on the roof at the commencement of the LW MG travel road. The stonedust standards on the roof and ribs in the MG travel road were not up the standard seen in the main headings and yet are supposed to be 85% incombustible compared to 70% in the mains. The Mine was reminded that the use of "Bat Bags" does not remove the requirements for incombustible matter as required by the CMSHR s301. The 'Bat Bags" observed at the entry to the LW TG were 50% damaged. The Mine must decide if it intends to continue to use them and if so, to ensure that they are effectively maintained.

There was a deal of congestion in the MG end of the Longwall outbye of the face which is understandable due to the fact that the LW had only 150 m to retreat before the end of the block. The ERZ Controller in the LW9 North LW was Mr Richard Borg. Throughout the Longwall face numerous sets of lifting equipment were found that were either incorrectly colour tagged or were defective and did not have "Out of Service" tags on them.

Face conditions were good. Horizon and alignment were good and, apart from a weaker area near the TG the roof conditions were good. The LW was down for maintenance at the time of inspection and several groups of coal mine workers were encountered. There was a group of 3 coal mine workers at around #40 shield working to change a leaking,fitting in the rear of the shield. One of the 3 was an inexperienced coal mine worker. In discussion with this individual he demonstrated that he, and his mentor, were fully aware of and understood the requirements for an inexperienced mine worker.

At the shearer there were two fitters working on the TG Down Drive unit of the machine. One fitter was on the AFC underneath the body of the shearer tightening bolts. The fitters explained the isolation that was in place for their work. They explained that the risk management process was the use of a SLAM, The Mine needs to consider whether a simple personal risk management tool such as this is sufficient for a task with the risk potential as that which was being undertaken. This is something that the supervisor should consider during the planning process for the work.

It was observed that there were pieces of equipment that had been replaced at some stage being left on the walkways on the front of the shields that coal mine workers had to negotiate in order to travel through the face. The shields were very dusty with a thick layer of coal dust over the shields and the rear linkages.

There was no-one deployed cleaning the supports even though there we suitable water hoses with sprays on the shields. In general, housekeeping standards throughout the Longwall were poor. Road conditions were wet and muddy and quite rough

Inspector Gouldstone with Mr Fitzpatrick noted that the inspection board at the entry to the Longwall TG had been completed and a discussion with two PIMS coal mine workers confirmed that they had been inspected by the official in the time listed on the board. The coal mine worker was able to readily explain his task, secondary support in preparation for the take-off, and the hazards involved.

The inspection board when updated had been edited, as opposed to re-written, with a blue-pen as opposed to the original, black. This can lead to errors being carried forward officials are recommended to re-write each time they complete the board.

The outbye end of the TG was untidy. Neither of the last two sealed stubs at CT 1 & 2 were effectively ventilated with the brattice wings in poor repair, evidence of vehicle access in the first and both showing sweating at the roof level which I was assured was the norm. The ERZC undertook to correct the matter.

It is important, in particular, that this area is maintained properly in all aspects as it will continue to be a high activity area for siting the E-frame and subject to abutment pressure where faulting is known to be present.

The two gas monitors] one in the take-off road and the second the Longwall 9N inbye monitor were examined. the first was hung by a hook over roof mesh and too high to read, footprints on pipes stacked below was evidence of persons climbing to view the displays. The second was covered in dust but equipped with a lowering rope to bring it into view.

The best standard for such monitors include a board showing identification number, location, last calibration date, by whom, and when positioned. They should be easily visible, and truly representative of the general body contents they are intended to measure. If circumstances mean that they need to be lifted out of harms way then there should be a safe means of reading the display.

The general condition of Longwall 9N TG was good with plenty of stonedust present.

The goaf-stream, meeting the longwall airstream, was creating a typical condensation cloud to show that it was positioned alongside the beam of the last face support precisely on the TG and faceline intersection. The same area is where the pipe hanging brackets are installed providing a high risk of incendive sparking when the shearer cuts out at the T - is there a logical alternative bracket or pipe position?

IOS Development

We then travelled to IOS Development. In doing so we repeatedly had to stop and circle back to take an alternative route due to large loads such as longwall monorail sleds that were in transit.

On entering IOS Development we observed the ERZI/NERZ boundary monitor. The monitor was hung in a high area of the roadway at a height of approximately 4 to 5 m from the floor. It was not possible to see the reading on the monitor's display and weekly calibration testing would have had to have been done from a man basket, The Mine should develop a standard for the installation of gas monitors.

The ERZ Controller was Mr Jeff Walters. We inspected a gas drainage drill rig that was drilling in seam gas drainage holes in G Heading 49 CT. The rig was manned by VLI contractors and was down for rig maintenance at the time of inspection. The methane monitor on the drill rig was observed and a second methane monitor was on the return side of the drilling activities behind a regulator. We observed two sets of chain blocks being used to support the large diameter gas drainage pipes. One of these chain blocks was hung from roof mesh 

It was pointed out that chain blocks should not be used for permanently suspending loads and needed to be replaced with suitable chains or other means. Both sets of chain blocks did not have the correct coloured tag fitted. The pipe chains on the pipes in the vicinity were not installed in a way that they were taking the weight of the pipes.

The Permit to Drill that was supplied by the VLI supervisor stated that there was a drill plan that must be signed off by the Ventilation Officer that would be attached to the permit. The plan that was attached was not signed off and had red hand-written notes printed on it There was no indication whether the hand-written notes were added before or after the plan had been approved. This practice should be avoided. There was a second, hand drawn plani with the notice that had no description on it, and nothing to identify the location it was associated with. None of the standpipes had identification labels on them to identify which standpipe was which.

This is critical information to identify which standpipe is associated with which hole detailed on the Flight Plans for the drill pattern. The Mine Manager was directed to suspend drilling operations at this place until such time that the pipe work was addressed, the drill permit was re-issued correctly and the standpipes were correctly labelled.

We then proceeded into the panel and observed a group of coal mine workers erecting pipes using a Pipe Trailer. Stonedust standards in this district were the best observed round the Mine. We observed two sets of lifting equipment that were incorrectly colour tagged.

Road conditions were poor with areas of mud and water that had to be walked through. The travel road conditions need to be maintained and adequate pumping system established to minimise the water on the roads.

There were numerous areas of rib support damage observed during the inspection.

3.0 Close-out meeting

Attending the close out meeting were Mr Romanski, Mr Anger, Mr Fitzpatrick, Mr Impson, Mr

Stook, Mr Harrington and Mr Shields. Mr Peter Baker from Peabody also joined the meeting.

We explained the observations from the inspection. We raised the availability of statutory inspection reports for coal mine workers to be able to access the reports prior to going underground and a sign off box for process Superintendents. We recommend that the Mine consider establishing a system where the reports are made available in segregated boxes or otherwise such that the reports are grouped together by inspection district and are easily available for coal mine workers to access. We discussed -

i) The use of "Bat Bags" as a stonedust barrier. It was stressed that Mine must determine, if these are to be used as part of the system for explosion protection then they must be maintained. The number of damaged Bat Bags observed in the TG indicated that they were not maintained and would therefore not be effective as designed.

ii) The standards in the Longwall district which were poor. The large amount of lifting equipment that was found throughout the inspection that was either broken or did not have the correct colour test tag indicated that the system was not being adequately implemented and controlled. The Mine must review the effectiveness of this system and take action to ensure it is adequately implemented, controlled and audited.

1. The findings at the VLI drilling site. An SCP is given to review the Permit to Drill process.

This must consider, as a minimum e Correct sign off of any plans included in the permit;

 Plans not to have handwritten comments so that it can be assured that all comments and other items on the plan are approved;

 Requirement to appropriately label stand pipes;

 An inspection of the drill site by the ventilation officer, gas drainage coordinator or other competent supervisor, prior to sign off; o Correct installation of pipework; o Ventilation requirements and air quantity measurements at the drill site; o Location of methane monitors.

1. The traffic congestion that we observed during the inspection. If there had been an emergency then access would have been difficult, The Inspectors understood that there was currently, a lot of activity focussed in a small area of the Mine, namely, LW9 North nearing the Mains, Development 10 South having just broken away from the Mains and a conveyor installation underway. The Mine should consider traffic management when planning daily tasks to ensure that access is considered while the tasks are underway.
2. The method of identifying strata defects was explained, as it had been observed that there appeared to be a considerable amount of damaged rib support around the Mine. It is important that the Mine has a system for identifying strata support defects as reported by ERZ Controllers and other persons so that they can be prioritised and inspected by geotechnical personnel and the rectification process is monitored to ensure timely rectification work.

There were no matters in dispute in regard to the items raised in this MRE

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| Number | Substandard Condition or Practice | Due Date |
|  | Review of Permit to Drill Methane Drainage Holes | 01/07/2018 |

An SCP is given to review the Permit to Drill process. This must consider, as a minimum -

Correct sign off of any plans included in the permit;

Plans not to have handwritten comments so that it can be assured that all comments and other items on the plan are approved;

Requirement to appropriately label stand pipes;

An inspection of the drill site by the ventilation officer, gas drainage coordinator or other competent supervisor, prior to sign off; Correct installation of pipework;

Ventilation requirements and air quantity measurements at the drill site; Location of methane monitors.

Please provide a written status report on each SCP together with the actions taken to address each item by their due dates



Richard Gouldstone Les Marlborough Inspector of Mines Inspector of Mines