

IN THE MATTER OF  
THE QUEENSLAND FLOODS COMMISSION OF INQUIRY

A COMMISSION OF INQUIRY UNDER THE  
COMMISSIONS OF INQUIRY ACT 1950

STATEMENT OF KARL WERNER SPALECK

I, **KARL WERNER SPALECK** of MMG Century Mine, Lawn Hill Road via Gregory Downs, General Manager of Century Mine say on oath:

1. I am employed by MMG Century Limited (**MMG Century**) as General Manager of the Century Mine.
2. I have held this position since 1 November 2009.

**QUESTION 1: A BRIEF DESCRIPTION OF THE MAIN FLOOD-RELATED CONCERNS  
AT THE CENTURY MINE**

**Background**

3. A total of 1114.8mm of rainfall was recorded at the Lawn Hill Mine airport between 1 November 2010 and 1 April 2011. This total was more than double the annual average rainfall of 518mm.
4. The 2010-11 wet season has been estimated as a 1 in 150 year (Annual Recurrence Interval) season which came on the back of a 1 in 125 year season (2008-09) and 1 in 20 year season (2009-10).
5. In the 72 hours to 0900 hours on 14 March 2011, the site recorded 389mm of rainfall which has been estimated to represent a 1 in 200 year event.

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**Statement of Karl Werner Spaleck**  
Filed on behalf of MMG Century Limited

**Blake Dawson**  
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6. This extraordinary rainfall overwhelmed the site's water management system and releases occurred from a number of permitted discharge points.
7. Most of the water was released pursuant to the requirements of Environmental Authority MIN100737008 (EA) but a single non-compliance was recorded on 15 March 2011 at the Page Creek receiving environment monitoring point.
8. In an effort to maintain compliance with the EA, 1850ML of mine affected water was transferred to the Century open pit for interim storage.

**Summary of primary concerns**

9. The primary concerns relating to the severe weather event of the 2010-11 wet season were:
- (a) The protection of the Page Creek receiving environment from environmental harm:
- (i) Page Creek is the primary receiving environment for releases from the Century Mine.
- (ii) Releases from the mine water management system have the potential to release salts, sediments and dissolved metals into the receiving environments.
- (iii) These contaminants have the potential to reduce the ecological diversity and productivity of freshwater environments.
- (b) Compliance with the requirements of the EA:
- (i) The EA permits the release of contaminants from the site under certain conditions.
- (ii) The volume of uncontrolled release from the mine into Page Creek was the primary contributor to the non-compliance event of 15 March 2011.
- (c) Management of the large mine water inventory stored in the Century open pit:
- (i) In order to meet, or substantially meet, concerns in relation to the protection of Page Creek receiving environment from environmental harm and compliance with the requirements of the EA, MMG Century transferred a

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significant volume of mine affected water into the active mining area for interim storage.

- (ii) The 1850ML inventory stored in the open pit restricted access to the main ore-body throughout much of 2011 and presented significant operational and business risks.
- (d) Management of the large mine water inventory stored in the evaporation dam:
  - (i) All mine affected water that is not suitable for release from site is eventually transferred to the evaporation dam for storage.
  - (ii) Due to the significant volume of mine water generated in 2008-09 and 2010-11 seasons, the water inventory in the evaporation dam has grown significantly. MMG Century has commenced substantial unplanned work in order to address this increase in the water inventory.

**QUESTION 2: AN ACCOUNT OF THE FLOOD PREPAREDNESS ACTIVITIES UNDERTAKEN BY MMG IN ADVANCE OF THE 2010/2011 WET SEASON AT THE MINE**

- 10. MMG Century takes a risk based approach to water management in accordance with the international standard for environmental management systems (ISO14001) at both the Karumba Port and Lawn Hill mine sites.
- 11. Water Management at Lawn Hill is conducted pursuant to the Lawn Hill Water Management Plan. The Plan identifies water management risks, establishes water management objectives and targets, and defines improvement actions to steer continuous improvement activities. The Plan also defines contingency scenarios associated with a number of abnormal conditions and events including severe weather patterns.
- 12. MMG Century has implemented a water management system, comprising a water management network (including pipes, pumps and impoundments) and a water management strategy which defines how the network is operated under different circumstances.
- 13. MMG Century has also developed a probabilistic water balance model to stimulate a range of potential climatic and water management scenarios. The model informs management activities and supports optimisation of the design and performance of the system.

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14. The 2008-09 wet season highlighted a number of shortcomings with the system that was implemented at that time, and significant quantities of mine contaminated water were released from the site.
15. MMG Century has since invested over \$13.5 million in capital equipment and operating procedures during 2009, 2010 and 2011 to improve the effectiveness of the system.
16. As part of this investment, MMG Century completed \$8 million of corrective and preventative water management improvement projects in 2009. These works included:
- (a) capping of the South West Waste Rock Dump to minimise generation of contaminated drainage water;
  - (b) the construction of Sediment Dam 10 to a total capacity of approximately 442ML; and
  - (c) remediation works within Page Creek following mine water discharges from the site during the 2008-09 wet season.
17. Following the 2009-10 wet season, MMG Century completed an additional \$5.5 million program of works to further improve its water management system by expanding the capacity of three sediment dams on site and to improve the capability of the MMG Century distribution network. The works included.
- (a) increasing the capacity of Sediment Dam 3 by 141.7ML to 503ML;
  - (b) increasing the capacity of Sediment Dam 8 by 75ML to 100ML; and
  - (c) increasing the capacity of Sediment Dam 10 by 625ML to 1067ML.
18. The total capacity of sediment dams 3, 8 and 10 was increased from 841ML in 2009 to 1670ML prior to the 2010-11 wet season.
19. In addition to these works, MMG Century is currently undertaking a major project to further improve the site's water management system by diverting clean surface run-off away from the mine water management system. The diversion project will see another \$8 million worth of water management improvement works completed in 2011.

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20. MMG Century has conducted annual assessments of the ecosystem health of the Century Mine receiving environments since 2005. These 'Limnology Assessments' examine all of the streams potentially affected by mining activities including the main recipient of site discharges, Page Creek.
21. Results from the most recent assessment compiled in 2010 have shown that there has been a significant improvement in the ecological condition of Page Creek compared to the 2009 campaign. The 2010 results showed that the 2010 condition of Page Creek was the best observed since surveys commenced in 2005. Results from the 2011 survey have not yet been finalised.
22. MMG Century was aware of general advice from the Bureau of Meteorology regarding the prediction of an above average wet season during the second half of 2010. However, MMG Century did not receive any specific advice related to the lower gulf region.
23. Such advice, although prescient, would be of little use to mine operators unless such information could be provided at least 12 months in advance.

**QUESTION 3: CONCERNS, COMPLIANCE AND RISKS IN RESPECT OF THE ENVIRONMENTAL AUTHORITY FOR THE CENTURY MINE**

24. One of the outcomes of the non-compliances associated with the 2008-09 wet season was that MMG Century was required to undertake an Environmental Evaluation (EE) into water management practices at Century Mine. The requirements of the notice were fulfilled and one of the outcomes was a review of the water schedule of the EA. The company remains in negotiations with the Department of Environment and Resource Management (DERM) in this regard.
25. MMG Century is yet to receive formal feedback regarding the DERM's assessment of the EE. DERM's current position is that the requirements of the current EA are not sufficient to prevent environmental harm and ensure the ongoing protection of the environmental values of Page Creek. This contention appears to be based primarily on the fact that the Page Creek sediments are characterised by metals concentrations that exceed default investigation guidelines.

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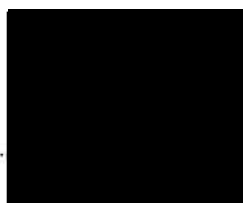
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26. The DERM has proposed a significant change to the conditions of the EA but has not substantiated the proposal with what MMG Century would consider to be an appropriate level of technical or scientific basis.
27. The DERM's contention is that releases from Century Mine, with the exception of the 2008-09 and 2010-11 releases, have by-and-large been in compliance with the EA and that the cumulative effect of these both compliant and non-compliant releases has given rise to the elevated sediment concentrations that exceed the Interim Soil Quality Guideline (ISQG). The DERM further argues that concentrations in excess of the ISQG-High constitute environmental harm.
28. The DERM's conclusion based on both of these contentions is that the requirement of the current EA are insufficient to protect the environmental values of the receiving environment.
29. MMG Century contends that the sediment concentrations in Page Creek are a result of a number of factors, including background concentrations, releases from Century Mine and releases from previous operations.
30. MMG Century considers the DERM's application of ISQG as a compliance limit to be incorrect. An exceedance of ISQG-High indicates 'highly contaminated sediments which are likely to have a biological impact: further investigation is required'. As noted above, limnology assessments have been conducted since 2005, and have consistently shown elevated sediment concentrations. These assessments, conducted on behalf of MMG Century, have demonstrated that the ecosystem health of Page Creek is not dissimilar to analogous, local systems that are generally impacted by alternative stresses such as cattle grazing. Furthermore, results obtained from limnology surveys following the 2008-09 season strongly support the notion that compliance with the requirements of the existing EA will support an improvement in creek health.
31. MMG Century's position is that the current EA affords an appropriate level of environmental protection. Despite this, MMG Century has attempted to negotiate amendments to the EA with the DERM without success.
32. MMG Century is concerned that the nature of the conditions proposed by the DERM are overly prescriptive, and the DERM has not provided what MMG Century would consider an appropriate level of technical or scientific basis for the proposed amendments.

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33. In addition, the DERM's engagement with MMG Century in relation to the negotiation of EA conditions:
- (a) has not been sufficient to reach the desired outcome; and
  - (b) does not deal with extreme events, such as flooding, in an effective manner.
34. The changes to EA conditions proposed by the DERM may be difficult – or even impossible – to implement. In addition, they do not offer a sufficiently significant increase in environmental protection compared with the likely cost of implementation.
35. Even under the new conditions proposed by the DERM, the releases that occurred during the 2010-11 wet season could not have been prevented.

**QUESTION 4: DETAILS OF ANY CHALLENGES FACING MMG REGARDING WATER MANAGEMENT AT THE MINE AND ACTIONS TAKEN TO ADDRESS THE CHALLENGES IN THE LAST THREE YEARS**

36. Please refer to responses to Questions 2 and 3 above.

**QUESTION 5: CURRENT PROCEDURES OR PLANS FOR FUTURE PROCEDURES BY MMG TO MANAGE WATER AT CENTURY MINE OTHER THAN BY STORING IT IN DAMS OR PONDS**

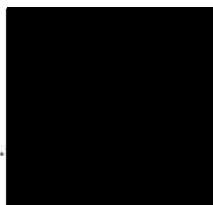
37. As outlined at paragraph 19 above, MMG Century is in the process of constructing a major clean water diversion scheme to redirect surface run off away from the mine water management system.
38. This system of embankments and diversion channels will play a significant role in reducing the water inventory to be managed on a year to year basis.

**QUESTION 6: AN EXPLANATION OF THAT WHICH IS INVOLVED IN MANAGING WATER AT THE MINE OTHER THAN BY STORING IT IN DAMS OR PONDS**

39. Please refer to response to Question 5 above.

**QUESTION 7: TRANSITIONAL ENVIRONMENTAL PROGRAMS OR EMERGENCY DIRECTIONS APPLIED FOR, GRANTED OR REFUSED DURING 1 OCTOBER 2011 TO 30 JULY 2011**

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40. No transitional environmental program (TEP) or emergency direction (ED) was applied for, granted or refused in relation to wet season releases at Century Mine during the period from 1 October 2010 to 30 July 2011.
41. However, on 12 August 2011, MMG Century applied for a TEP to support its proposed clean water diversion scheme (see paragraphs 19, 37 and 38 above).

**QUESTION 8: CONCERNS ARISING FROM NEGOTIATION OF ENVIRONMENTAL AUTHORITY CONDITIONS OR APPLYING FOR AND BEING GRANTED OR REFUSED ANY TRANSITIONAL ENVIRONMENTAL PROGRAM OR EMERGENCY DIRECTION**

42. Informal advice from DERM officers was that TEPs and/or EDs would not be granted for the purpose of achieving compliance with EAs in respect of wet season releases during the 2010-11 wet season.
43. MMG Century was advised that such avenues would only be available if MMG Century could demonstrate that a program or directive would result in reduced environmental harm and/or the protection of human life and property.
44. MMG Century believes that there is inconsistency in the application of this expectation across the Queensland jurisdiction.

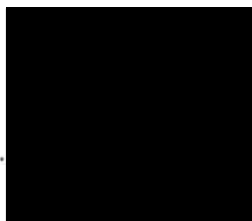
**QUESTIONS 9 AND 10: FITZROY MODEL CONDITIONS**

45. The Fitzroy Model Conditions do not apply at Century Mine or to its EA.

**CLOSING STATEMENT**

46. MMG Century believes that, based on lessons learned during the extraordinary 2008-09 wet season, it has substantially improved its water management systems and infrastructure. This investment, now totalling more than \$21 million dollars over three years, has allowed the mine to successfully manage the extraordinary 2010-11 with minimum release to the environment.
47. While MMG Century believes it is now in a much improved position to respond to extraordinary rain events, it must be recognised that the potential for environmental harm associated with extreme events remains.

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48. MMG Century has taken, and will continue to take, reasonable and practicable measures to minimise harm even in these events. This has been demonstrated by MMG Century's decision to transfer mine affected water into the main pit effectively prioritising environmental protection above production.
49. The DERM's proposed amendments to the EA represent a significant constraint on the business of Century Mine, are not supported by an appropriate level of scientific basis, and do not offer a significant increase in environmental protection.
50. MMG Century has been able to demonstrate that the environmental values of Page Creek (and the other Century receiving environments) have not been diminished following the releases reported during the 2008-09 wet season, and indeed, ecological health of the freshwater systems can be improved with ongoing compliance with the existing EA conditions.
51. MMG Century remains concerned that despite the company's efforts to address the site specific challenges associated with water management, the DERM remains focussed on licensing arrangements that result in 'zero risk to the environment' and on a policy of enforcement that does not consider site specific issues, particularly following extreme events.

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30/9/2011

Sworn/~~Affirmed~~ by Karl Werner Spaleck on 30<sup>th</sup>/9/2011 at Townsville in the presence of:



Karl Werner Spaleck  
Deponent



Commissioner for Declarations/  
Solicitor/Justice of the Peace

