

New South Wales

**Board of Surveying and Spatial Information**

# **MINING LAW ASSESSMENT**

## **MINING SURVEYING**

### **Surveying and Spatial Information Act 2002**

(Mining Legislation)

Wednesday 22<sup>nd</sup> February 2012

**All questions to be answered**

Duration 2 Hours

Question 1 (50 Marks)

1. Sketch the following symbols as defined in AS4368 Mine plans – preparation and symbols.
  - a. In seam Borehole
  - b. Underground magazine
  - c. Fire Depot
  - d. Floor RL (underground)
  - e. Bench mark (surface)
2. AS4368 states that Ventilation Plans shall be on a scale no smaller than what scale?
3. What shall be shown on a Ventilation Plan as described in AS4368?
4. Under the Coal Mine Health and Safety Act 2002 describe 2 areas a safe work method statement must address?
5. Who can inspect the up to date copy of the Emergency management system kept at the onsite office as described in the Coal Mine Health and Safety Act 2002?
6. Who may give direction regarding barriers and pillars as stated in CMHS Act 2002?
7. What must be shown on a Fire fighting plan as described by CMHS Regulations 2006?
8. When should the Escape and Rescue plans be updated as described by CMHS Regulations 2006?
9. What are the duties of a coal operator when ceases to operate coal operation and is replaced by another operator under the CMHS Regulations 2006?
10. Who must approve any method of mining other than bord and pillar in an underground mine as stated in CMHS Regulations 2006?
11. The CMHS Regulations 2006 requires the retention of what plans at the coal operation?

12. To what particular Australian Standard must an operator ensure that any Lasers used at a coal operation be in accordance with as stated in CMHS Regulations 2006?
13. What obligations does the operator of a mine have concerning the mine safety management plan as described in Mine Health and Safety Act 2004?
14. The Mine Health and Safety Regulations 2007 states that contents of mine plans must include 5 elements. What are they?
15. What obligations does the operator of a mine have regarding the certification of a mine plan as described in the MHS Regulations 2007?
16. The MHS Regulations 2007 states that the duties of a Mine Surveyor are?
17. To control the risk of Inrush the MHS Regulations 2007 states that an operator must ensure that plans are prepared. Who can create these plans?
18. What must these plans show?
19. What obligations does an operator have regarding the review and updating of Escape and Rescue plans according to the MHS Regulations 2007?
20. What is the definition of a **mining survey** as defined under the Surveying and Spatial Information Act 2002?
21. Who can authorise the removal, destruction etc. of survey marks as stated in the Surveying and Spatial Information Act 2002?
22. What is the definition of a **registered mining survey** as defined under the Surveying and Spatial Information Act 2002?
23. When must a surveyor verify GNSS equipment against State control survey as stated in Surveying and Spatial Information Regulations 2006?
24. What is the definition of **MGA** as described in Surveying and Spatial Information Regulations 2006?
25. What are the 3 dominant files that make up a Shapefile?
26. Metadata statements must be given a file name indicating what?
27. What format do the Mine Working Digital themes have to be submitted to the Director General in?

28. What is the maximum amount of characters to be used for an Attribute Name?
29. Where a date is accurately known what format is the **date attribute** to be shown in?
30. What is the definition of a **subsidiary survey** as defined in the SDD for Mine Surveyors 2007?
31. Name 4 Mine Working Digital Themes that as a minimum must be supplied as described in the SDD for Mine Surveyors 2007?
32. SDD for Mine Surveyors 2007 states that Escape and Rescue plans for UG mines should be at a scale not less than ?
33. To what accuracy should secondary surveys be carried out, to locate mine workings to be shown on Mine Working Plans as described in the SDD for Mine Surveyors 2007?
34. What are the duties of a Registered Mining Surveyor at a Metalliferous Mine?
35. What is the reporting period for supply of a copy of the Mine Working Plan and in what format must it be for a Metalliferous Mine?
36. What are the 2 lines to be shown in a Void plan for an open cut mine as described in SDD for Mining Surveyors?
37. What are the 3 minimum themes that must be supplied for an open cut Metalliferous Mine?

Question 2 (10 marks)

The Occupation Health and Safety Act 2000 refer to the establishment of OHS committees and the election of OHS representatives.

- (a) In the case of a coal workplace within the meaning of the Coal Mine Health and Safety Act 2002 list the two compulsory members of any OHS committee for that workplace.
  
- (b) In the case of a workplace that is a mine within the meaning of the Mine Health and Safety Act 2004 list the compulsory member of any OHS committee for that workplace.
  
- (c) List the Functions of the OHS committee.

Question 3 (10 marks)

You are the mine surveyor for a number of small underground metalliferous mines.

You have been instructed to employ a new staff member to assist in completing the statutory surveys required as well as the day to day operational work required.

Due to operational commitments only general supervision can be afforded to the new employee for mining surveys.

What are the requirements for the new employee to qualify for general supervision for mining surveys?

How should this supervision be exercised and what is required for you to certify the new surveyors work in accordance with the Survey and Drafting Directions for Mining Surveyors 2008?

Question 4 (10 marks)

You are the Registered Mining Surveyor for an underground coal mine.

The mine wishes to establish a new coarse reject emplacement area in an parcel of land the company has recently purchased.

Given the mining lease has a surface exemption in this area what would be required regarding mining tenure, consents and approvals for this to happen and give a general description of each process?

Question 5 (10 marks)

You are the mine surveyor for a new open cut gold mine.

You have been asked to establish a baseline for the new operation.

Describe the methods, standards and requirements for this work?

Also state who can undertake this work?



Question 6 (10 marks)

You are the surveyor at a small open cut coal mine that has been extracting the remains of some abandoned underground mines as part of its multi seam operation.

It is proposed to develop a new underground mine from the open cut in to one of the seams.

Describe how the guide on Archival Research published by Industry & Investment could be used to assist in the investigations regarding the old working and the actions you would undertake?