

CANDIDATE EXAM PAPER

CANDIDATE NUMBER: _____

OCM1 – Legislation

**MINING ENGINEERING MANAGER OF COAL MINES OTHER THAN
UNDERGROUND COAL MINES**

EXAMINATION FOR CERTIFICATE OF COMPETENCE

Work Health and Safety (Mines and Petroleum Sites) Act 2013
Work Health and Safety (Mines and Petroleum Sites) Regulation 2022

Legislation to be assessed:

Unless otherwise stated all references to Act and Regulations are to:

Work Health and Safety Act 2011

Work Health and Safety Regulation 2017

Work Health and Safety (Mines and Petroleum Sites) Act 2013

Work Health and Safety (Mines and Petroleum Sites) Regulation 2022

Explosives Act 2003

Explosives Regulation 2013

This Examination is held in the following location:

Region: New South Wales

Venue: Tocal College

Room: North Court

Start date/time: 15 Jun 2023 09:00:00

OCM1 – Legislation

INSTRUCTIONS TO CANDIDATES

OCM1 – Legislation | Jun-2023

Q #	Marks	Available Marks	Marked by <i>Initials</i>	Summary comments to justify
1		20		
2		20		
3		20		
4		20		
5		20		
Paper Total		100		<i>Marks checked by:</i>

EXAM BOOKLET

Answers are to be written in the allocated spaces
within this booklet ONLY

Answers must be written in pen however,
drawings may be completed in pencil

This booklet is not to be altered in any way,
pages are not to be added or removed

Additional space is provided at the end of the paper.

Please label which question the answer relates to.

Question 2

The Work Health and Safety (Mines and Petroleum Sites) Regulation 2022.

Details the required content of a safety management system:

a. What are the management structure requirements? (5 marks)

b. What are the requirements in regard to control measures used to control risks associated with contractors? (5 marks)

c. What must a mine operator inform workers about in relation to the site's safety management system before a worker commences work at the mine? (5 marks)

d. When must a safety management system be reviewed? (5 marks)

Question 4

The Work Health and Safety (Mines and Petroleum Sites) Regulation 2022

Operational controls refers to Movement of Mobile plant

List seven (7) requirements of this clause. (20 marks)

Question 5

You receive a call from your Opencut Examiner to report an incident where a haul truck operator has reported having seen a small flame and smelt smoke coming from the rear tyre of the haul truck they were operating; the truck is parked safely and water carts are in place cooling the tyre the operator is uninjured.

List the key immediate and foreseeable legislative requirements that are required to be complied with in relation to this incident. (20 marks)

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CANDIDATE EXAM PAPER

CANDIDATE NUMBER: _____

OCM2 – Open cut mining practice

**MINING ENGINEERING MANAGER OF COAL MINES OTHER THAN
UNDERGROUND COAL MINES**

EXAMINATION FOR CERTIFICATE OF COMPETENCE

Work Health and Safety (Mines and Petroleum Sites) Act 2013
Work Health and Safety (Mines and Petroleum Sites) Regulation 2022

Legislation to be assessed:

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Work Health and Safety (Mines and Petroleum Sites) Act 2013

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Explosives Regulation 2013

This Examination is held in the following location:

Region: New South Wales

Venue: Tocal College

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Start date/time: 15 Jun 2023 11:00:00

OCM2 – Open cut mining practice

INSTRUCTIONS TO CANDIDATES

OCM2 – Open cut mining practice | Jun-2023

Q #	Marks	Available Marks	Marked by <i>Initials</i>	Summary comments to justify
1		60		
2		60		
3		60		
4		60		
5		60		
Paper Total		300		<i>Marks checked by:</i>

EXAM BOOKLET

Answers are to be written in the allocated spaces
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Additional space is provided at the end of the paper.

Please label which question the answer relates to.

Question 2

You are the Mining Engineering Manager of a large mine site consisting of large rope face shovels, hydraulic excavators, front end loaders and a dragline doing the bulk earthmoving activities. There have been several incidents in recent years where highwalls have had major slope stability failures. Most recently, you had an incident where the highwall failed and buried a hydraulic excavator beneath it while the excavator was in operation. The excavator operator was able to escape from the cab with minor cuts and bruising.

a. Was this most recent event a reportable incident and why? (10 marks)

b. List the different types of major highwall failures and provide a brief explanation of each type. Diagrams may be used (20 marks)

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c. List ten (10) ground conditions that could increase the risk of a major highwall failure? (10 marks)

d. List and explain ten (10) controls to reduce the risk of a major highwall failure? (20 marks)

Question 3

You have accepted the role as Mining Engineering Manager at a recently approved new open cut mine. The mine will produce approximately 8 million tonne ROM per annum. You currently have a small team developing the site's SMS which includes a technical services team consisting of a Technical services Manager, Geologist and 2 Mine Engineers. Given that it is a new operation at which no blasting has occurred, it is recommended that an assessment for elevated temperature and reactive ground be conducted.

a. Describe what reference material and other resources you could review or use for the identification and analysis for the risk? (12 Marks)

b. Describe the contents of your action plan including any recommendations identified during review of reference material and other resources for the identification and analysis for the risk? (12 Marks)

c. Reactivity screening has identified a number of the samples as being reactive after it comes into contact with nitrates describe the next steps in your action plan to manage the risks associated with reactive ground. (12 Marks)

d. Briefly outline the contents of your reactive ground blasting procedures. (12 Marks)

e. Given the restrictions on sleep time for blasting products briefly describe what effect this may have on the mining operation once it is in full operation (12 Marks)

b. How would you evaluate the two methods of traffic control? (10 Marks)

c. If you were to transition to hierarchy of control, outline how you would manage a safe transition to this method of operation. (20 Marks)

d. How would you validate the success of the transition (10 Marks)

Question 5

You are the Mining Engineering Manager and receive a call at shift change on Sunday afternoon from the N/S OCE that a man transport bus has rolled on a ramp on route to the crib hut. There are 16 workers on the bus and the driver of the bus states that several of the workers have been seriously injured and are trapped in the bus. Access to the area is restricted due to road conditions from recent wet weather.

- a. List in sequence the actions you would undertake as MEM in response to the incident. (20 Marks)

b. You are required to engage external services to assist in recovering and managing the number of injured persons at the incident site how would you manage this. (20 Marks)

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