

# Councils/Forests NSW NPWS

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Information presentation – 2 hours

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August 2023





The Department of Regional New South Wales acknowledges that it stands on Country which always was and always will be Aboriginal land. We acknowledge the Traditional Custodians of the land and waters, and we show our respect for Elders past, present and emerging. We are committed to providing places in which Aboriginal people are included socially, culturally and economically through thoughtful and collaborative approaches to our work.

# Welcome



Evacuation procedures and toilets

Introduction of speakers

The day is an open forum. Feel free to ask any questions, at any time.

Open discussion is encouraged. That way you may be thinking of a question that someone has just asked.

# Presentation Topics



- NSW Resources Regulator's role
- PCBU duties - 'mine operator' &/or 'contractors'
- Quarry managers
  - Tier profile refresher (Tier 1, Tier 2 & Tier 3)
  - Tier 2 (Practicing certificates)
  - Tier 2 (Transitioning to a 'Tier 2 All' – 01 Oct 2024)
  - Tier 3 (Competent person)
  - Tier 2/3 (infrequent blasting)
- Legislation updates
- Identifying respirable silica as a hazard
- Teenagers injured in a vehicle rollover at a gravel quarry

# Resources Regulator

- NSW WHS Regulator for mines and petroleum sites (Safework NSW does the rest)
- Coal (u/g and open cut)
- Metals (u/g & open cut)
- Quarries (large & small)
- Tourist mines
- Exploration activities
- Gemstone mines
- Opal mines
- Petroleum sites



# Our objectives

We aim to:

- ensure a safe, sustainable and innovative mining, extractive and petroleum industry in NSW
- provide information and guidance about safety, environmental and other regulatory obligations to protect and support industry, workers, the community and the state
- promote confidence in how the industry is regulated
- make regulation transparent
- engage with and educate both industry and the community about best practice
- support industry to meet its regulatory obligations.



# How the 'Mine Safety Inspectorate' achieves its objectives

- **Inspecting mines** for compliance against legislation.
- Bringing **health and safety concerns to the attention** of mine operators.
- **Providing information and support** to help quarry managers and mine workers improve safety.
- **Investigating accidents**, incidents and complaints.
- **Auditing safety management systems**, emergency plans & other compliance with WHS (MPS) laws.
- **Assisting in the resolution** of work, health and safety issues at workplaces.

Call **1300 814 609** to report incidents/injuries and for general enquiries.

# What is the definition of a mine?

- A mine is a place that is:
  - i. a workplace at which mining operations are carried out, or
  - ii. a tourist mine, and
- includes any fixtures, fittings, plant or structures at the place that are used or were formerly used for mining operations.





# Mining operations include:

- mining activities for the purpose of **extracting** or exploring for minerals (which include all minerals, **rock, gravel and sand**),
- decommissioning, making safe or closing an extractive or exploration site
- carrying out activities at a site or adjoining areas or in vicinity of sites, which includes
  - handling or storing extracted material
  - preparing and processing material
  - constructing a site for mining activities.

# Legislative framework for mines

*Work Health and Safety Act 2011*

Codes of practice  
Standards  
Guidelines

Work Health and Safety Regulation 2017

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

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

Codes of Practice  
Standards  
Guidelines  
Safety Management System

# Explosives laws NSW



The use of explosives in all NSW workplaces is covered by the *Explosives Act 2003* and *Explosives Regulation 2013*.

The main purpose of the legislation is to improve public safety and security of explosives (as well as concentrated ammonium nitrate) by preventing unauthorised access.

Anyone using explosives needs to hold a blasting explosives users license.

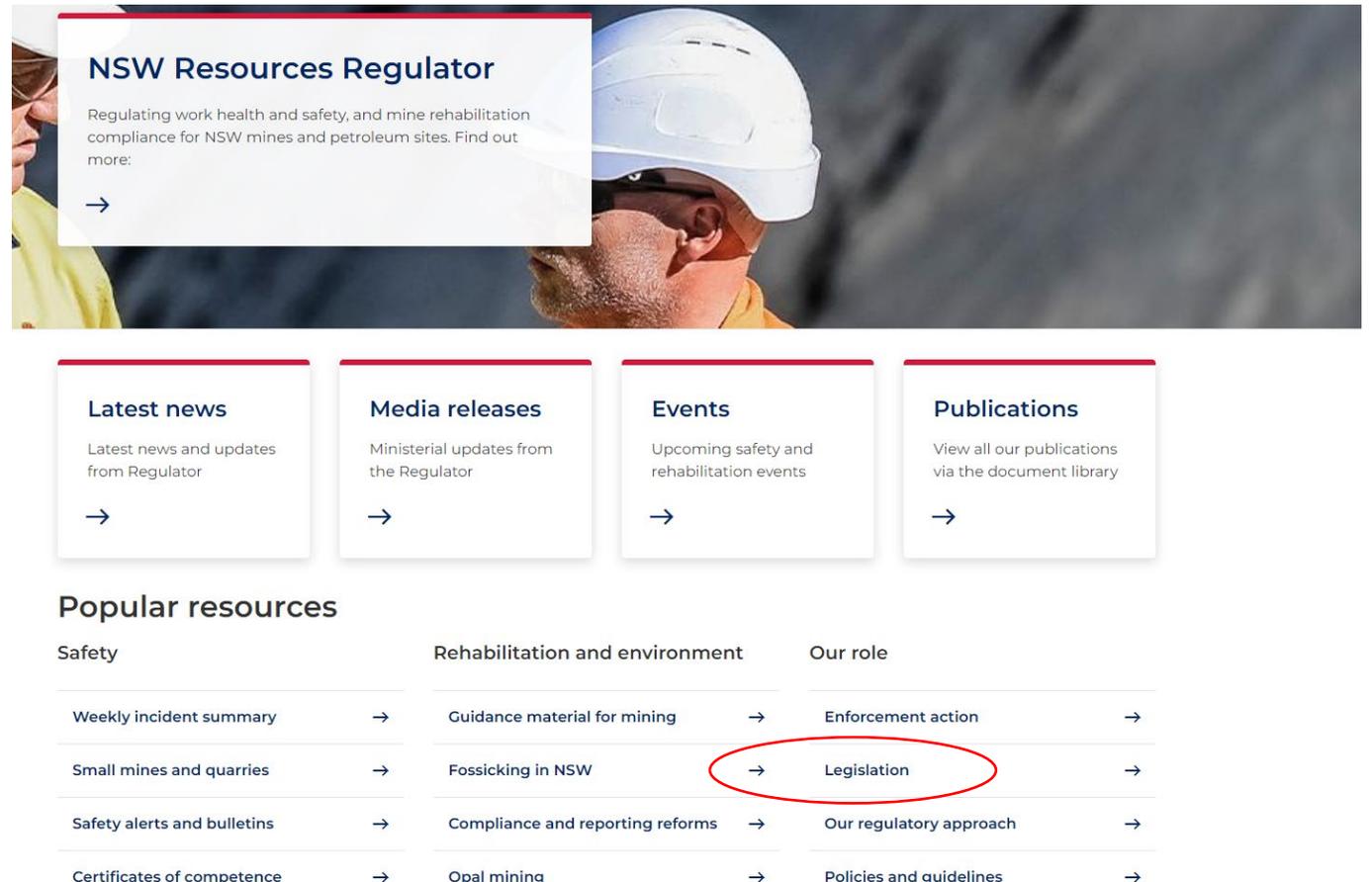
Anyone handling explosives needs a security clearance.



# How to access relevant legislation?

- Visit the Resources Regulators website.
- On the home page there is a link to legislation.
- The Work Health and safety (Mines & Petroleum Sites) Act and Regulation can be accessed from this link.
- There is also plenty of other useful and handy information available from here.

[www.resourcesregulator.nsw.gov.au](http://www.resourcesregulator.nsw.gov.au)



**NSW Resources Regulator**  
Regulating work health and safety, and mine rehabilitation compliance for NSW mines and petroleum sites. Find out more:  
→

**Latest news**  
Latest news and updates from Regulator  
→

**Media releases**  
Ministerial updates from the Regulator  
→

**Events**  
Upcoming safety and rehabilitation events  
→

**Publications**  
View all our publications via the document library  
→

**Popular resources**

| Safety                                        | Rehabilitation and environment                     | Our role                                  |
|-----------------------------------------------|----------------------------------------------------|-------------------------------------------|
| <a href="#">Weekly incident summary</a> →     | <a href="#">Guidance material for mining</a> →     | <a href="#">Enforcement action</a> →      |
| <a href="#">Small mines and quarries</a> →    | <a href="#">Fossicking in NSW</a> →                | <a href="#">Legislation</a> →             |
| <a href="#">Safety alerts and bulletins</a> → | <a href="#">Compliance and reporting reforms</a> → | <a href="#">Our regulatory approach</a> → |
| <a href="#">Certificates of competence</a> →  | <a href="#">Opal mining</a> →                      | <a href="#">Policies and guidelines</a> → |

# Mine operator appointment

- Mine operator of a mine means:
  - the mine holder, or
  - the mine holder has appointed another person to be the mine operator.
- This appointed mine operator must:
  - Be a PCBU operating on behalf of the mine holder.
  - Have the skills, knowledge, experience and resources.
  - Have been authorised by the mine holder to be the operator (appointment document).
- The **mine holder must notify the regulator** who the mine operator is, using the appropriate notification form.

# Can the mine operator be a contractor ?



# Duties of a PCBU (mine operator or contractor)

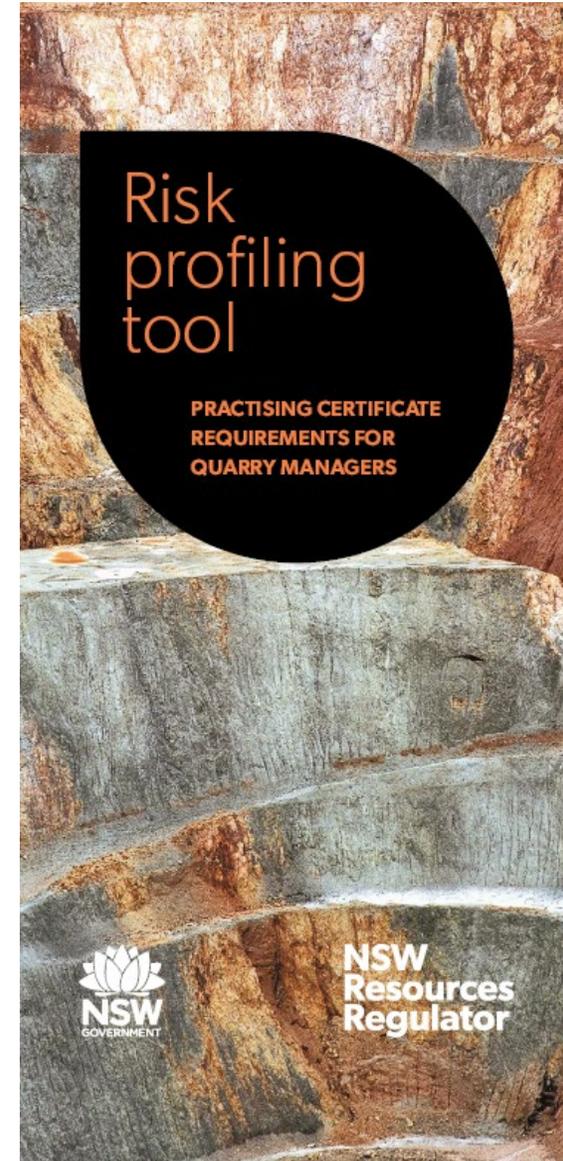
- PCBU (mine operator or contractor) must ensure, so far as is reasonably practicable, the health & safety of workers & others by:
  - the provision and maintenance of a **working environment that is safe** and without risks to health, including safe access to and exit from the workplace
  - the provision and maintenance of **plant, structure and systems of work** that are safe and do not pose health risks.
  - the **safe use, handling, storage and transport of plant, structures and substances.**
  - the provision of **adequate facilities** for the welfare of workers at work
  - the provision of **information, instruction, training or supervision** to workers needed for them to work without risks to their health and safety and that of others around them.
  - that the **health of workers and the conditions of the workplace are monitored** to prevent injury or illness arising out of the conduct of the business or undertaking, and
  - the **maintenance of any accommodation owned or under their management and control** to ensure the health and safety of workers occupying the premises.

# Tier level - risk profiling tool

This tool was developed to rank a mine based on:

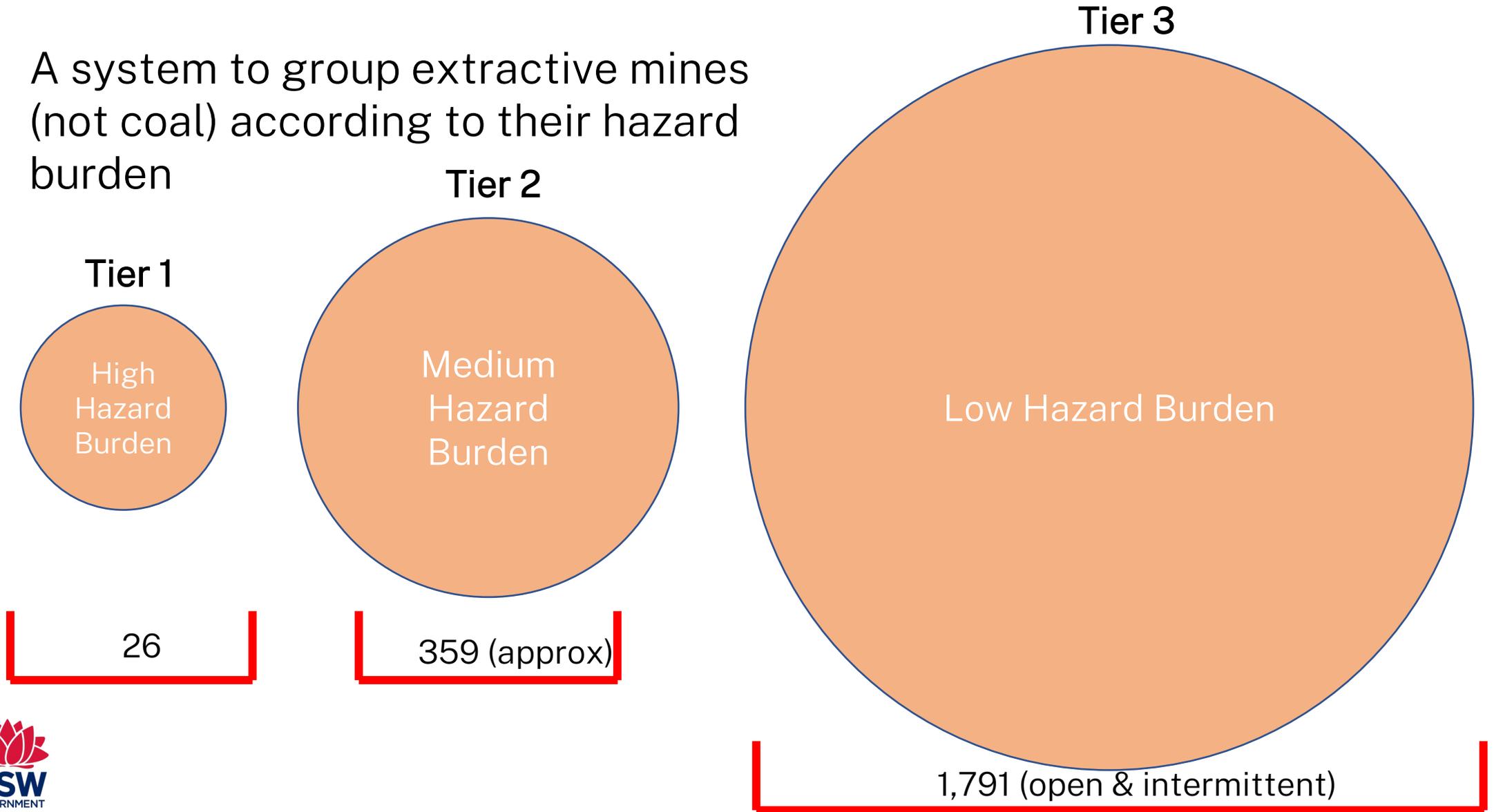
- The nature and complexity of operations at the mine,
- Whether explosives are used, and
- Level of complexity of electricity used, and
- An assessment of Principal Hazards on site and the exposure to the number of workers, and
- Staffing and output levels.

It generates a numeric output, which then dictates what Tier level the mine is.



# Tier 1, 2 & 3 mines – What are they?

- A system to group extractive mines (not coal) according to their hazard burden



# Risk profiling tool



## RISK PROFILING TOOL

for mine eligibility to nominate a Quarry Manager with a mine specific practising certificate

NSW  
Resources  
Regulator



|                                          |                                    |
|------------------------------------------|------------------------------------|
| Mine name (as listed in ACES):           | Mine operator (as listed in ACES): |
| Inspector/Mine Safety Officer name:      | Date of assessment:                |
| Inspector/Mine Safety Officer signature: | <b>ELIGIBLE Score =</b>            |

| TIER 3 QUARRY CRITERIA |                                                                                                               | YES OR NO | NOTES (IF APPLICABLE) |
|------------------------|---------------------------------------------------------------------------------------------------------------|-----------|-----------------------|
| 1                      | Has five or less workers fulltime equivalent workers (FTE), including the Quarry Manager and contractors, and |           |                       |
| 2                      | Does not carry out any dredging or blasting (explosives) activities on the site, and                          |           |                       |
| 3                      | Does not extract more than 30,000 cubic metres of extractive material for sale or reuse per year              |           |                       |

\*\* If the site meets the above 3 criteria (yes to each), **do not** complete the rest of the profiling tool. Site is to be marked as a tier 3 quarry and a practising certificate is not required.

# Quarry manager qualifications vs tier ranking



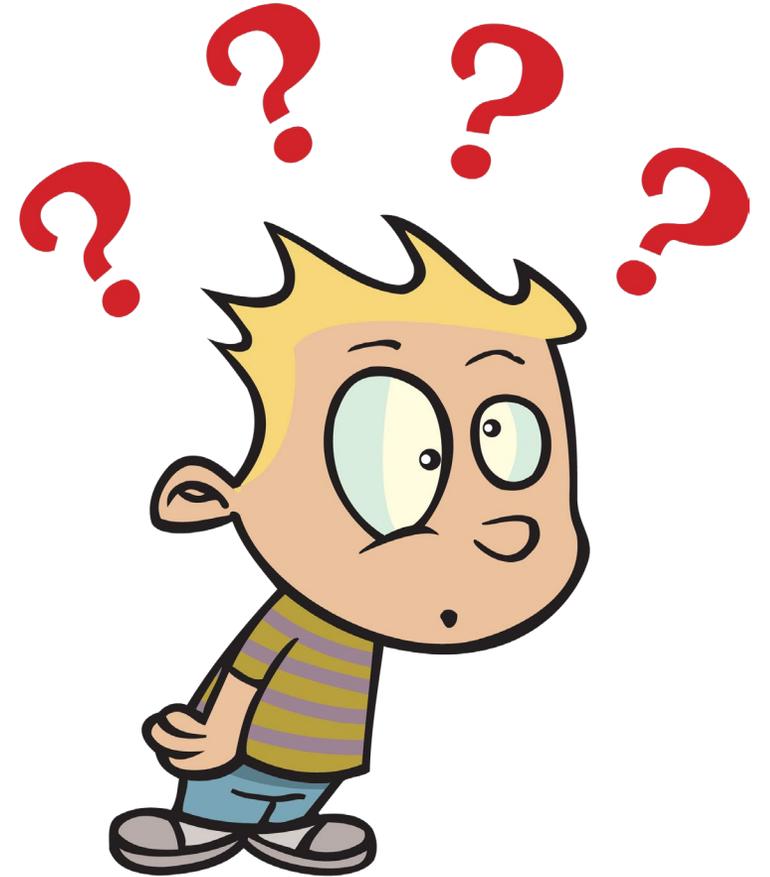
The more complex the mine, the higher the QM qualification required

Quick refresher on requirements

# Tier 2 - Practising certificates

Do you have your practising certificate?

- Site (s) specific (expires 30 Sept 2024)
- Tier 2 all (required by 1 Oct 2024)



# RTOs providing Cert IV training – (information only)

| RII40115 Cert IV in Surface Extraction Operations |                                                                                        |                                                                                                                  |
|---------------------------------------------------|----------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|
| Training NSW                                      |                                                                                        | <a href="http://www.training.gov.au/Search/SearchOrganisation">www.training.gov.au/Search/SearchOrganisation</a> |
| Institution                                       | Website                                                                                | contact                                                                                                          |
| Minres - QLD                                      | <a href="http://www.minres.com.au">www.minres.com.au</a>                               | Leigh Willson                                                                                                    |
| Box Hill TAFE -VIC                                | <a href="http://www.boxhill.edu.au">www.boxhill.edu.au</a>                             | Diane Wilson                                                                                                     |
| RTV - TAS                                         | <a href="http://www.rtv.com.au">www.rtv.com.au</a>                                     | Marie                                                                                                            |
| Group 314 -NSW                                    | <a href="http://www.group314.com">www.group314.com</a>                                 | Kit                                                                                                              |
| In4Training -QLD                                  | <a href="http://www.in4training.com.au">www.in4training.com.au</a>                     | Trish                                                                                                            |
| Mears - QLD                                       | <a href="http://www.mearsct.com.au">www.mearsct.com.au</a>                             | Cassie                                                                                                           |
| Performance Training - QLD                        | <a href="http://www.performancetraining.com.au">www.performancetraining.com.au</a>     | Bryce                                                                                                            |
| TNLC - WA                                         | <a href="http://www.tnlc.com.au">www.tnlc.com.au</a>                                   | Cherie                                                                                                           |
| Ocurrio - NSW                                     | <a href="http://www.ocurrio.com">www.ocurrio.com</a>                                   | Renee                                                                                                            |
| Mine Training Solutions - QLD                     | <a href="http://www.minetrainingsolutions.com.au">www.minetrainingsolutions.com.au</a> | Kara                                                                                                             |

# Tier 3 quarry manager

- Can be a holder of a practising certificate, or
- Can be a competent person.

The exemption defines a competent person as:

*a person who has acquired through training, qualification or experience the knowledge and skills to carry out the task of supervising mining operations at a mine, other than an underground mine or a coal mine, having regard to the location of the mine, the complexity of the mining operations at the mine and the nature of the material mined.*

If the operator is going to nominate a competent person as the quarry manager they must assure themselves that the person is competent based on the definition and have a record of how they made this determination.

# Quarry managers for Tier 1, 2 & 3 mines

|                                     | MINE TIER LEVEL                                              |                                            |                                        |
|-------------------------------------|--------------------------------------------------------------|--------------------------------------------|----------------------------------------|
|                                     | 1                                                            | 2                                          | 3                                      |
| Must nominate a Quarry Manager?     | Yes                                                          | Yes                                        | Yes                                    |
| Are qualifications required?        | Yes<br>Practising Certificate &<br>Certificate of Competence | Yes <sup>1</sup><br>Practising certificate | No <sup>2</sup><br>(Must be competent) |
| Be shown in management structure?   | Yes                                                          | Yes                                        | Yes                                    |
| Notification RR of nomination?      | Yes                                                          | Yes                                        | No                                     |
| Notify RR of changes to QM details? | Yes                                                          | Yes                                        | No                                     |
|                                     |                                                              |                                            |                                        |

## Notes

1. Transitional period to phase out **examinations**, and be based on experience and qualifications **30 Sept 2022**
2. A quarry manager with a practising certificate can be the quarry manager of a Tier 3 mine

# Resources Regulator Portal



This includes open-cut and underground mines, petroleum sites, quarries and extractive operations, tourist mines, opal and other small scale mines, and mining exploration activities. We also undertake compliance and enforcement activities in relation to the Mining Act 1992, with a key focus on mine rehabilitation. We were established on 1 July 2016 as a standalone regulator.

[Inspection programs](#) →

[Festive season safety advice](#) →

## Portal services

### SEED Portal

'SEED' is the central resource for Sharing and Enabling Environmental Data (SEED) in NSW



### Resources Regulator Portal

Visit the Resources Regulator portal to report incidents, or notify the Regulator of other matters



### Mine Rehabilitation Portal

View the Mine Rehabilitation portal to access spatial data related to mine rehabilitation and closure



We pay respect to the Traditional Custodians and First Peoples of NSW, and acknowledge their continued connection to their country and culture.

[Accessibility](#) [Contact us](#) [Copyright](#) [Disclaimer](#) [Privacy](#) [Related websites](#) [Report an incident](#) [Portal services](#) [YouTube](#) [Work for us](#)

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- Lodging incidents
- Managing nomination of mine operator
- Uploading your cert IV
- Varying your existing QMPC (site specific)
- Renewing your existing QMPC

# Mining worker's portal

The screenshot shows the NSW Resources Regulator portal interface. At the top, there is a navigation bar with the NSW Government logo on the left and the 'Regulator Portal' title on the right. A search bar is positioned below the navigation bar, containing the text 'How can we help?'. Below the search bar, there is a grid of service tiles. The 'Mining Worker's Portal' tile is highlighted with a red circle. Other tiles include 'Title Holder's Portal (Mining Act)', 'Operator's Portal (WHS(MPS) Act)', 'Mine Rehabilitation Portal', and 'Regulator Web Page'. A footer at the bottom of the page reads 'NSW Resources Regulator'.

nswwresourcesregulator.service-now.com/regulator

Apps Angus Stuff Home - NSW Reso... ACES One Place Workplace Smartfleet Australia My Learning - Bridg... Q3\_Small Mines - G... Google Maps ACES TEST COVID-19 vaccine... CAMMS

NSW GOVERNMENT Regulator Portal Drafts AM Angus McDouall

How can we help?

Announcements  
No information available

Title Holder's Portal (Mining Act)

Operator's Portal (WHS(MPS) Act)

Mining Worker's Portal

Mine Rehabilitation Portal

Complete or draft a form

Regulator Web Page

NSW Resources Regulator

# What happens if the quarry manager leaves, or goes on leave?

The quarry manager must:

- be **readily available** to exercise,
- and is **capable** of exercising, the statutory function

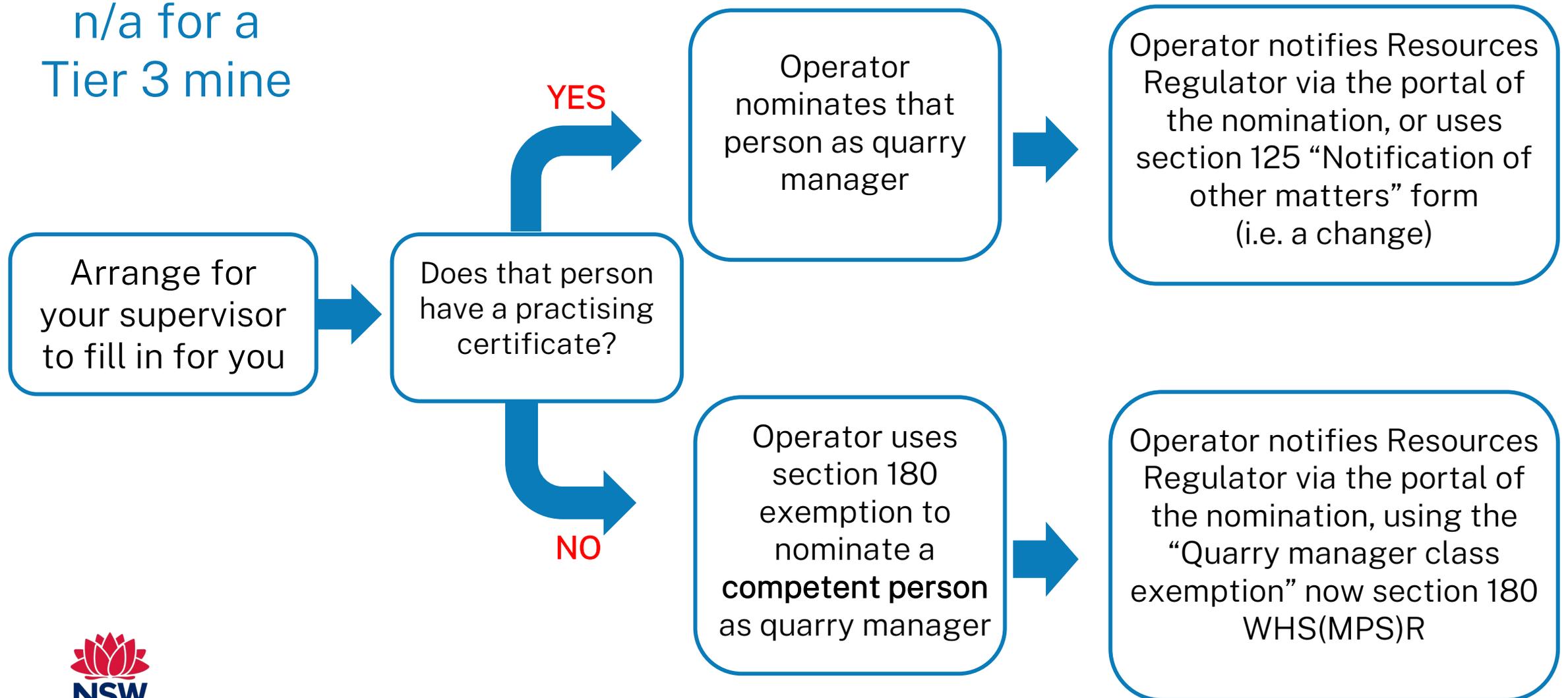


supervise mining operations

Cannot do that while he/she is on leave

# What to do if quarry manager is away – Tier 2

n/a for a  
Tier 3 mine



# What to do if quarry manager is away – Tier 3

- Nominate another competent person (no requirement to notify RR)
- Ensure you have a record of their competency determination
- Record their name in management structure section of your safety management system
- Record any handover with current quarry manager

# Blasting at small quarries

The Resources Regulator understands that at different stages of a quarry's development, blasting may be required, however it also understands that these blasts may be conducted infrequently and in some cases as a one off.

Regardless, once blasting activities are included at a quarry, that quarry becomes a tier 2 quarry and the mine operator must appoint a duly qualified quarry manager to manage mining operations.

When the blasting operations are completed and there is no intention of blasting again for greater than 2 years, the mine operator may apply to the Resources Regulator to re-profile the quarry and as such it may revert back to being a tier 3 operation, which can be supervised by a 'competent person'.



# Legislation update 2022 - What's new for small mines?

- The Work Health and Safety (Mines & Petroleum Sites) Regulation 2022 came into effect on the 1 September 2022.
- The new Regulation contains sections rather than clauses and contains additional sections, so the numbering convention is altered from the previous Regulation.
- New exemptions for tier 3 quarries apply.

# Exemptions for tier 3 quarry operators

- Section 178 exempts operators of certain classes of mines (this includes tier 3 quarry operators). Operators of tier 3 quarries are exempt from the requirements of section 19 (2) (c) in relation to contents of the safety management system.
- What does this mean?
  - No requirement for principal hazard management plans.
  - No requirement for principal control plans.
  - Tier 3 quarries can still have principal hazard management plans & principal control plans – so if you have these in place don't go changing

# What risks does a tier 3 quarry have to manage?



However, WH&S (M&Ps) R 2022 section 178(3), requires operators of tier 3 quarries to set out the systems, procedures, plans and other control measures that will be used to control risks to health and safety at the mine associated with the following –

- ground or strata failure,
- inundation or inrush of a substance,
- roads or other vehicle operating areas,
- air quality or dust or other airborne contaminants,
- the mechanical aspects of plant or structures,
- electricity,
- a hazard identified by the mine operator under the WHS Regulations, clause 34 that has a reasonable potential to result in multiple deaths in a single incident or a series of recurring incidents.

# Additional monitoring requirements

From 1 September 2023, operators of mines other than coal mines (excluding opal mines) where **respirable crystalline silica (RCS)** has been identified as a hazard, will be required to undertake compliance sampling and analysis of airborne dust in accordance with **Schedule 6** of the regulation.

- Compliance sampling is required at least once every **12 months**.
- Requirements for how samples are collected apply.
- **Only licenced** (Resources Regulator issued) entities can provide this compliance monitoring service.
- There is a **fact sheet available** on our website.



# Identifying respirable crystalline silica as a hazard

- When identifying respirable dust and respirable crystalline silica (RCS) hazards at mines and quarries, operators should consider:
  - whether the material extracted at site contains crystalline silica
  - whether other materials and products used at the site contain crystalline silica
  - operations at the site that may cause dust to be released into the air, such as drilling and blasting, digging or excavating, loading, transporting or conveying, crushing or screening, maintenance and housekeeping processes.
  - the duration of worker exposure during operations
  - If you are uncertain, monitoring is an obligation under the WH&SR 2017 Cl 50
  - Engage hygienist to assist with determining if RCS is a hazard based on their observations on site and results from the monitoring.



# Fact sheet (must read)

If the initial assessment based on silica content of material, activities and exposure duration determines RCS 'is' or 'may' be a hazard then the risk of worker exposure needs to be analysed, including;

- Personal dust monitoring
- Methods of operation at the site
- Evaluation of controls used on site

The risk of worker exposure is assessed as follows:

- **< 0.02 mg/m<sup>3</sup>** Exposure Risk is Acceptable (RCS is not considered a hazard)
- **> 0.05 mg/m<sup>3</sup>** Exposure Risk is Not Acceptable (RCS is considered a hazard)
- **0.02 - 0.05 mg/m<sup>3</sup>** Exposure Risk is Uncertain (further risk assessment with hygienist)



## Fact sheet

Identifying respirable crystalline silica as a hazard

Version 2.0

February 2023

### Introduction

Under the *Work Health and Safety Act 2011*, a person conducting a business or undertaking has the primary duty to ensure, so far as is reasonably practicable, workers and other people are not exposed to health and safety risks arising from the business or undertaking. This duty includes eliminating exposure to airborne dusts, so far as is reasonably practicable.

The operator of a mine (other than a tier 3 quarry) must prepare a principal hazard management plan (PHMP) if airborne dust contaminants are a risk at the mine. The PHMP must set out how the mine operator will manage the risks associated with airborne contaminants at the site. In so doing, it should provide for compliance with any requirements of the work health and safety laws that relate to airborne contaminants, such as personal exposure monitoring for airborne dust.

The Work Health and Safety (Mines and Petroleum Sites) Regulation 2022 took effect on 1 September 2022. From 1 September 2023, operators of mines other than coal mines (excluding opal mines) where respirable crystalline silica has been identified as a hazard, will be required to undertake compliance sampling and analysis of airborne dust in accordance with Schedule 6 of the regulation. This fact sheet provides guidance on the process for identifying crystalline silica as a hazard.

### Obligations of mine operators

Under section 41 of the regulation mine operators must minimise the exposure of workers at the mine to dust as far as reasonably practical and must also ensure that a worker's exposure to dust (including respirable dust and respirable crystalline silica) does not exceed the 8-hour time weighted average exposure limits prescribed in section 41(1)(b) of the Regulation and the workplace exposure limits for airborne contaminants.

### Identifying respirable crystalline silica as a hazard

Hazard identification is usually a qualitative process undertaken by a group of skilled and experienced people with knowledge of the operation or activities being undertaken. Those who will be exposed to the hazards can also make a valuable contribution to identifying the hazards.

When identifying respirable dust and respirable crystalline silica hazards at mines and quarries, operators should consider:

- whether the material extracted at site contains crystalline silica
- whether other materials and products used at the site contain crystalline silica
- operations at the site that may cause dust to be released into the air, such as drilling and blasting, digging or excavating, loading, transporting or conveying, crushing or screening, maintenance and housekeeping processes.
- the duration of worker exposure during operations



## Monitoring requirements for multiple sites with similar geology

- Internally rationalise the number of pits being used
- Ensure that all nonoperational pits are 'closed' in the NSW Resources Regulator database
- Establish silica levels for each operational pit based on previous information or new petrographic analysis
- Determine if RCS is a hazard based on - silica level, activities and worker exposure (and if unsure conduct workplace personal dust monitoring)
- Evaluate the results with a **hygienist** and establish if RCS is a hazard at each pit
- Where RCS is identified as a hazard, conduct annual personal monitoring as per schedule 6 at each pit, 'when and if' the pits are operational
- For sites that have less than 5 persons working in total, a sample must be collected from the breathing zone of each person working at the site

Remember - Regardless of whether RCS is identified as a hazard the mine operator still has to satisfy cl 50 WHSR – (airborne monitoring)

# List of providers that have been granted a licence

|  <b>Regional NSW</b> |                     | <b>Register of licences for sampling and analysing airborne dust</b><br>(Current as of 16 June 2023) |                                                                                                              |                       |                |                   |                   |  |
|-------------------------------------------------------------------------------------------------------|---------------------|------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|-----------------------|----------------|-------------------|-------------------|--|
| Licence holder                                                                                        | Licence holder ACN  | Licence holder address                                                                               | Nominated facility location                                                                                  | Licensed activity     | Licence number | Issue date        | Expiry date       |  |
| AECOM Australia Pty Ltd                                                                               | 093 846 925         | 17 Warabrook Boulevard, WARABROOK NSW 2304                                                           | 17 Warabrook Boulevard, WARABROOK NSW 2304                                                                   | Sampling and Analysis | MLA 101736     | 25 November 2020  | 24 November 2025  |  |
| Australian Laboratory Services Pty Ltd                                                                | 009 936 029         | 5/585 Maitland Road, MAYFIELD WEST NSW 2304                                                          | 5/585 Maitland Road, MAYFIELD WEST NSW 2304                                                                  | Analysis              | MLA 201800893  | 19 August 2019    | 1 October 2023    |  |
| Callander & Johnson Consultancy Services Pty Ltd                                                      | 118 568 282         | 1A Vickery Street, EAST MALVERN VIC 3145                                                             | 1A Vickery St, EAST MALVERN VIC 3145                                                                         | Sampling              | MLA 0017051    | 9 May 2023        | 8 May 2028        |  |
| Coal Services Pty Ltd                                                                                 | 099 078 234         | Level 21, 44 Market Street, SYDNEY NSW 2000                                                          | 558-580 Princes Hwy, WOONONA NSW 2517                                                                        | Sampling and Analysis | MLA 0016064    | 16 September 2022 | 15 September 2027 |  |
| EDP Consultants Pty Ltd t/a RSK Labs                                                                  | 624 867 509         | 3/41-43 Higginbotham Road, GLADESVILLE NSW 2111                                                      | 3/41-43 Higginbotham Road, GLADESVILLE NSW 2111                                                              | Analysis              | MLA 0017030    | 24 April 2023     | 23 April 2028     |  |
| EnviroLab Services Pty Ltd                                                                            | 112 535 645         | 12 Ashley Street, CHATSWOOD NSW 2067                                                                 | 12 Ashley Street, CHATSWOOD NSW 2067 (site no. 2894); and 16-18 Hayden Court, MYAREE WA 6154 (site no. 2213) | Analysis              | MLA 0017505    | 24 April 2023     | 23 April 2028     |  |
| *EnviroScience Solutions Pty Ltd                                                                      | 157 918 262         | Unit 2 / 3 Douglas Mawson Road, DUBBO NSW 2830                                                       | Unit 2 / 3 Douglas Mawson Road, DUBBO NSW 2830                                                               | Sampling              |                |                   |                   |  |
| Green Consulting Group Pty Ltd                                                                        | 114 988 751         | Unit 7/34 Navigator Place, HENDRA Qld 4011                                                           | Unit 4 / 46-50 Belmore Road, LORN NSW 2320                                                                   | Sampling and Analysis | MLA 125872     | 3 March 2021      | 2 March 2026      |  |
| Occupational Hygiene Consulting Pty Ltd                                                               | 158 519 638         | Unit 3, 22 Bradmill Avenue, RUTHERFORD NSW 2320                                                      | Unit 3, 22 Bradmill Avenue, RUTHERFORD NSW 2320                                                              | Sampling and Analysis | MLA 0017274    | 5 May 2023        | 4 May 2028        |  |
| SESA - Safety & Environmental Services Australia Pty Ltd                                              | 133 203 933         | Unit 53/3 Kelso Crescent, MOOREBANK NSW 2170                                                         | Unit 53/3 Kelso Crescent, MOOREBANK NSW 2170                                                                 | Sampling              | MLA 0017326    | 6 June 2023       | 5 June 2028       |  |
| *Sintars (Safety in Mines Testing and Research Station)                                               | ABN: 49 809 734 894 | 2 Robert Smith Street, REDBANK QLD 4301                                                              | 2 Robert Smith Street, REDBANK QLD 4301                                                                      | Sampling and Analysis |                |                   |                   |  |
| Workplace Environment Consultants Pty Ltd                                                             | 119 965 114         | 16/6-8 Holden Street, ASHFIELD NSW 2131                                                              | 16/6-8 Holden Street, ASHFIELD NSW 2131                                                                      | Sampling              | MLA 0017521    | 6 June 2023       | 5 June 2028       |  |

\* Facility has an application for a new licence with the regulator. This does not indicate if the licence will be granted or refused.

# Teenagers injured in a vehicle rollover at a gravel quarry

Resources Regulator  
Department of Regional NSW



## Investigation information release

### Teenagers injured in a vehicle rollover at a gravel quarry

Incident date: 29 October 2022

Event: Teenagers injured in a vehicle rollover at a gravel quarry

Location: Mills Gravel Quarry

#### Overview

Three teenagers were injured when the all-terrain vehicle (ATV) they were travelling in rolled over at a quarry. One of the teenagers received serious internal injuries by being pinned beneath the ATV.

#### The quarry

Mills Gravel Quarry is located about 25 kilometres north-west of Tamworth, NSW. It is a hard rock quarry operated by Tamworth Regional Council. Excavated materials are crushed periodically by a contractor engaged by the mine operator. The mine operator draws from stockpiles of crushed material maintained on site as required.

The quarry is situated on farmland owned by a third party who is not believed to be involved in the quarrying operation. The quarry is separated from neighbouring farmland by fencing.

At the time of the incident, there were at least two openings in the fence between the farm and quarry that permitted access.

Figure 1. Quarry and surrounding farmland



- **Three teenagers in an ATV** entered the quarry on a Saturday afternoon.
- It is believed access was gained via **an open gate** at the rear of the quarry.
- The ATV travelled up an **embankment with a grade of 19 %** (not the access road).
- The **ATV rolled over** and at least one of the occupants was **caught underneath** the ATV.
- One of the occupants **suffered severe internal injuries**.

Figure 2. Open gate permitting access between the quarry and surrounding farmland



Figure 3. ATV following rollover



# Investigation identified

- The quarry and the farm occupied the **same land title** (quite common).
- The quarry had **development consent** granted in 1995.
- There had been **several different landowners** since then.
- The **last formal agreement** between the mine operator and landowner was **2011**.
- It **was not updated** with the latest landowner.
- It did not **detail site security** and **WHS** arrangements.
- Before the incident, the landowner had approached the mine operator about **formalising the arrangements** (had not eventuated).
- The teenagers were **legally entitled** to enter the quarry.

# Lets Discuss !



In relation to the incident –

Who had duties (responsibilities)?

What causal factors can you see?

# Primary causal factors – Section 20 WHSA 2011

- The mine operator failed in its duty under section 20 WHSA 2011 to ensure that the workplace was without risks to the health and safety of any person

1. **Openings** between the farm and quarry had existed for some time.
2. **Signs warning** of the risks of unauthorised entry were not installed near the openings.
3. The landowner had **not been inducted** into the quarry.
4. The mine operator did **not have any agreements with the landowner** about WHS at the quarry and entry into it by people associated with the landowner.

# Agreements (signed)

- The mine operator did not have any agreements with the landowner about WHS at the quarry and entry into it by people associated with the landowner

Lets Expand !

- Do you have an agreement with the landowner – what does it consider ?
- Can the landowner (mine holder) access the site at any time?
- Does the agreement require the site to be fenced?
- Is the landowner allowed to conduct mining operations for them selves?
- What happens if the landowner allows other parties to extract material?

- Quarries should **be fenced** in accordance with DA requirements &/or based on the risk profile of the site.

- Entrances should **have gates** wherever possible.
- Entrances should **be locked** wherever possible.
- If a site is fenced and gated it must **be maintained**.
- Appropriate **warning signs** should be in place.

## Site security



# And if there is no fence?

- Ensure you have done everything that is **'reasonably practicable'** to prevent any persons being exposed to unsafe hazards.
- **Consider location, remoteness and hazards** while determining security measures.
- **Must leave the site in a safe condition** when not operating.
- **Batter faces or bund exposed edges.**
- **Protect water holes and sumps.**
- **Block access ways** (particularly to high benches).
- Install **warning signage** on edges and/or entry.
- **Conduct regular inspections** – frequency based on risk.
- **Alert and educate potential intruder groups.**



# Unauthorised access



- Do everything that is **reasonably practicable**.
- **Regularly inspect** and demonstrate due diligence.
- **Keep records**.
- Don't leave as an **amusement park**.



# Expect the unexpected





Any questions?