

# Certificate of competence

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*UNIT STANDARD REQUIREMENTS*

August 2019



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## If you require for a new current certificate of competence

In conjunction with the below required unit standards each applicant must also be/have the following:

- fill in the application form on the WorkSafe website: [worksafe.govt.nz/topic-and-industry/extractives/new-zealand-board-of-examiners](https://worksafe.govt.nz/topic-and-industry/extractives/new-zealand-board-of-examiners) this includes:
  - logbook outlining the length of experience required for the CoC you are applying for
  - a fit and proper person
  - current criminal check
  - current first aid certificate including the specified unit standards outlined within this document.

You must complete the following unit standards for the relevant CoC before submitting your application.

### Quarry CoC's

CERTIFICATE OF COMPETENCE	UNIT STANDARD NUMBER	TITLE
A-grade Quarry Manager	7142	Demonstrate knowledge of the application of regulatory requirements to manage an extractive site
	7143	Inspect and report on extractive site and operations
	7144	Review and implement plans for ongoing operations of an extractive site
	8899	Plan storage for product processed at extractive sites
	8902	Prepare and implement safety plans for surface face and benching operations
	8905	Construct and maintain access roads within surface extraction sites
	8909	Maintain working surfaces at surface extraction sites
	8922	Conduct safety checks prior to equipment usage at an extractives site
	15658	Select excavation and transportation plant for surface extraction
	15663	Design and maintain stockpiles and sloping surfaces in surface excavations and stockpiles
	15664	Demonstrate knowledge of the geological nature of surface extraction sites
	15667	Demonstrate knowledge of extraction methods and the effects of geological features on these methods
	16686	Conduct an incident investigation at an extraction site
	17279	Demonstrate knowledge of the coordinated incident management system (CIMS)
	17694	Demonstrate knowledge of explosives and their properties
	21151	Demonstrate knowledge of planning rehabilitation operations of an extractives site
	21152	Demonstrate and apply knowledge of storing explosives for use
	21153	Demonstrate and apply knowledge of dewatering, pump maintenance, and cleaning settling ponds at extraction sites
21155	Review consent conditions and demonstrate knowledge of the use of water at surface extraction sites	

<b>CERTIFICATE OF COMPETENCE</b>	<b>UNIT STANDARD NUMBER</b>	<b>TITLE</b>
	21156	Plan, implement, and describe surface extraction production to minimise environmental impacts
	22445	Describe the roles and functions of a CIMS Incident Management Team (IMT) at an incident
	25878	Demonstrate knowledge of crushing and screening plant for extractive industries
	26855	Analyse human factors present in workplace practices to determine how they contribute to incidents at an extractive site
	26856 or 28983	Carry out the risk management processes at an extractive site
<b>FIRST AID UNIT STANDARDS</b>		
	6400	Manage first aid in an emergency situation
	6401	Provide first aid
	6402	Provide basic life support
<b>B-grade Quarry Manager</b>	8902	Prepare and implement safety plans for surface face and benching operations
	8905	Construct and maintain access roads within surface extraction sites
	8909	Maintain working surfaces at surface extraction sites
	8922	Conduct safety checks prior to equipment usage at an extractives site
	16686	Conduct an incident investigation at an extraction site
	21153	Demonstrate and apply knowledge of dewatering, pump maintenance, and cleaning settling ponds at extraction sites
	21155	Review consent conditions and demonstrate knowledge of the use of water at surface extraction sites
	21156	Plan, implement, and describe surface extraction production to minimise environmental impacts
	26856 or 28983	Carry out the risk management processes at an extractive site
	28742 or 7142	Explain the health and safety legislation, and supporting documents, applicable to an extractive site  Demonstrate knowledge of the application of regulatory requirements to manage an extractive site
<b>FIRST AID UNIT STANDARDS</b>		
	6400	Manage first aid in an emergency situation
	6401	Provide first aid
	6402	Provide basic life support
<b>Manager to manage the quarrying operation specified in the certificate</b>	8905	Demonstrate knowledge of construction and maintenance of working surfaces at an extractive site
	16686	Conduct an incident investigation at an extractive site
	28742 or 7142	Explain legislation related to health and safety and supporting documents, applicable to an extractive site  Demonstrate knowledge of the application of regulatory requirements to manage an extractive site
	28793	Conduct safety inspections for extractive operations
	28983	Carr out the risk management process at an extractive site

CERTIFICATE OF COMPETENCE	UNIT STANDARD NUMBER	TITLE
	FIRST AID UNIT STANDARDS	
	6400	Manage first aid in an emergency situation
	6401	Provide first aid
	6402	Provide basic life support

## Tunnelling CoCs

CERTIFICATE OF COMPETENCE	UNIT STANDARD NUMBER	TITLE
A-grade Tunnel Manager	2401	Safely shut down and isolate machines and equipment
	3271	Suppress fire with hand extinguishers and fixed hose reels
	7142	Demonstrate knowledge of the application of regulatory requirements to manage an extractive site
	7143	Inspect and report on extractive site and operations
	7144	Review and implement plans for ongoing operations of an extractive site
	7145	Design, establish, and maintain effective ventilation systems for an underground mine
	7146	Demonstrate basic knowledge and ability required to work in an underground mine
	8899	Plan storage for product processed at extractive sites
	8922	Conduct safety checks prior to equipment usage at an extractive site
	15660	Analyse and select mining and transportation plant for a Metalliferous underground extractive site
	15666	Demonstrate knowledge of geology for underground extraction
	15669	Demonstrate knowledge of tunnelling methods
	15662	Evaluate ground conditions and design support methods for underground mines and tunnels
	15672	Demonstrate knowledge of the Mines Rescue Service
	16686	Conduct an incident investigation at an extraction site
	17279	Demonstrate knowledge of the coordinated incident management system (CIMS)
	17691	Use mathematics to solve problems in an extractive industries workplace
	17694	Demonstrate knowledge of explosives and their properties
	17705	Describe, develop, and maintain basic ventilation systems for an underground mine or tunnel
	21151	Demonstrate knowledge of planning rehabilitation operations of an extractives site
	21152	Demonstrate and apply knowledge of storing explosive for use
	21278	Describe, install, and reassess support systems for an underground mine
	21281	Interpret and test for gases in an underground extraction site
	21661	Demonstrate knowledge of the use of electrical reticulation plant and equipment in underground mines
	21821	Supply, maintain, deliver, and store services for an underground mine

<b>CERTIFICATE OF COMPETENCE</b>	<b>UNIT STANDARD NUMBER</b>	<b>TITLE</b>
	22057	Demonstrate knowledge of fluid power systems used in underground mines and tunnels
	22445	Describe the roles and functions of a CIMS Incident Management Team (IMT) at an incident
	26855	Analyse human factors present in workplace practices to determine how they contribute to incidents at an extractive site
	26856 or 28983	Carry out the risk management processes at an extractive site
<b>FIRST AID UNIT STANDARDS</b>		
	6400	Manage first aid in an emergency situation
	6401	Provide first aid
	6402	Provide basic life support
<b>B-grade Tunnel Manager</b>	2401	Safely shut down and isolate machines and equipment
	3271	Suppress fire with hand extinguishers and fixed hose reels
	7143	Inspect and report on extractive site and operations
	7144	Review and implement plans for ongoing operations of an extractive site
	7146	Demonstrate basic knowledge and ability required to work in an underground mine
	8899	Plan storage for product processed at extractive sites
	8922	Conduct safety checks prior to equipment usage at an extractives site
	15672	Demonstrate knowledge of the Mines Rescue Service
	16686	Conduct an incident investigation at an extraction site
	17279	Demonstrate knowledge of the coordinated incident management system (CIMS)
	17694	Demonstrate knowledge of explosives and their properties
	17691	Use mathematics to solve problems in an extractive industries workplace
	17705	Describe, develop, and maintain basic ventilation systems for an underground mine or tunnel
	21152	Demonstrate and apply knowledge of storing explosive for use
	21278	Describe, install, and reassess support systems for an underground mine
	21281	Interpret and test for gases in an underground extraction site
	21661	Demonstrate knowledge of the use of electrical reticulation plant and equipment in underground mines
	21821	Supply, maintain, deliver, and store services for an underground mine
	22057	Demonstrate knowledge of fluid power systems used in underground mines and tunnels
	22445	Describe the roles and functions of a CIMS Incident Management Team (IMT) at an incident
	26855	Analyse human factors present in workplace practices to determine how they contribute to incidents at an extractive site
	26856	Carry out the risk management processes at an extractive site
	28742 or 7142	Explain the health and safety legislation, and supporting documents, applicable to an extractive site  Demonstrate knowledge of the application of regulatory requirements to manage an extractive site

CERTIFICATE OF COMPETENCE	UNIT STANDARD NUMBER	TITLE
	FIRST AID UNIT STANDARDS	
	6400	Manage first aid in an emergency situation
	6401	Provide first aid
	6402	Provide basic life support

## Mining CoCs

CERTIFICATE OF COMPETENCE	UNIT STANDARD NUMBER	TITLE
Senior Site Executive	7142	Demonstrate knowledge of the application of regulatory requirements to manage an extractive site
	16810	Develop a Workplace Emergency Management Plan
	17279	Demonstrate knowledge of the coordinated incident management system (CIMS)
	22445	Describe the roles and functions of a CIMS Incident Management Team (IMT) at an incident
	23547	Establish the risk management system at an extractive site
	23548	Establish and maintain the Occupational Health and Safety management system at an extractive site
First Class Mine Manager	7142	Demonstrate knowledge of the application of regulatory requirements to manage an extractive site
	7143	Inspect and report on extractive site and operations
	7144	Review and implement plans for ongoing operations of an extractive site
	7145	Design, establish, and maintain effective ventilation systems for an underground mine
	7146	Demonstrate basic knowledge and ability required to work in an underground mine
	8902	Prepare and implement safety plans for surface face and benching operations
	8905	Construct and maintain access roads within surface extraction sites
	8909	Maintain working surfaces at surface extraction sites
	8922	Conduct safety checks prior to equipment usage at an extractives site
	8899	Plan storage for product processed at extractive sites
	15658	Select excavation and transportation plant for surface extraction
	15662	Evaluate ground conditions and design support methods for underground mines and tunnels
	15663	Design and maintain stockpiles and sloping surfaces in surface excavations and stockpiles
	15664	Demonstrate knowledge of the geological nature of surface extraction sites
	15665	Demonstrate knowledge of the geology of surface extraction
	15666	Demonstrate knowledge of geology for underground extraction
	15667	Demonstrate knowledge of extraction methods and the effects of geological features on these methods
	15670	Demonstrate knowledge of mining methods for Metalliferous mines

<b>CERTIFICATE OF COMPETENCE</b>	<b>UNIT STANDARD NUMBER</b>	<b>TITLE</b>
	15672	Demonstrate knowledge of the Mines Rescue Service
	16686	Conduct an incident investigation at an extraction site
	17279	Demonstrate knowledge of the coordinated incident management system (CIMS)
	17691	Use mathematics to solve problems in an extractive industries workplace
	17693	Explain and determine water flow, select pumps, and structures for an extraction site
	17694	Demonstrate knowledge of explosives and their properties
	17744	Read and interpret an underground extractive site plan
	21151	Demonstrate knowledge of planning rehabilitation operations of an extractives site
	21152	Demonstrate and apply knowledge of storing explosives for use
	21153	Demonstrate and apply knowledge of dewatering, pump maintenance, and cleaning settling ponds at extraction sites
	21155	Review consent conditions and demonstrate knowledge of the use of water at surface extraction sites
	21156	Plan, implement, and describe surface extraction production to minimise environmental impacts
	21278	Describe, install, and reassess support systems for an underground mine
	21280	Demonstrate knowledge of and design an effective ventilation system in an underground mine
	21281	Interpret and test for gases in an underground extraction site
	21629	Evaluate and implement plans to manage old workings and inundations in underground sites
	22056	Demonstrate knowledge of theoretical mechanics for extractive industries
	22445	Describe the roles and functions of a CIMS Incident Management Team (IMT) at an incident
	25878	Demonstrate knowledge of crushing and screening plant for extractive industries
	26855	Analyse human factors present in workplace practices to determine how they contribute to incidents at an extractive site
	26856	Carry out the risk management processes at an extractive site
<b>FIRST AID UNIT STANDARDS</b>		
	6400	Manage first aid in an emergency situation
	6401	Provide first aid
	6402	Provide basic life support
<b>First Class Coal Mine Manager</b>	2401	Safely shut down and isolate machines and equipment
	3271	Suppress fire with hand extinguishers and fixed hose reels
	7142	Demonstrate knowledge of the application of regulatory requirements to manage an extractive site
	7143	Inspect and report on extractive site and operations
	7144	Review and implement plans for ongoing operations of extractive site



<b>CERTIFICATE OF COMPETENCE</b>	<b>UNIT STANDARD NUMBER</b>	<b>TITLE</b>
	7145	Design, establish and maintain effective ventilation systems in underground mines
	7146	Demonstrate basic knowledge and ability required to work in an underground mine
	8899	Plan storage for product processed at extractives sites
	8902	Prepare and implement safety plans for surface face and benching operations
	8905	Construct and maintain access roads within surface extraction sites
	8909	Maintain working surfaces at surface extraction sites
	8922	Conduct safety checks prior to equipment usage at an extractives site
	15658	Select excavation and transportation plant for surface extraction
	15662	Evaluate ground conditions and design support methods for underground mines and tunnels
	15663	Design and maintain stockpiles and sloping surfaces in surface excavations and stockpiles
	15665	Demonstrate knowledge of the geology of surface extraction
	15666	Demonstrate knowledge of geology for underground extraction
	15667	Demonstrate knowledge of extraction methods and the effects of geological features on these methods
	15668	Demonstrate knowledge of mining methods for underground coal
	15672	Demonstrate knowledge of the Mines Rescue Service
	16686	Conduct an incident investigation at an extraction site
	17279	Demonstrate knowledge of the coordinated incident management system(CIMS)
	17691	Use mathematics to solve problems in an extractive industries workplace
	17694	Demonstrate knowledge of explosives and their properties
	17705	Describe, develop, and maintain basic ventilation systems for an underground mine or tunnel
	17743	Demonstrate knowledge of survey principles and apply to an extraction site
	17744	Read and interpret an underground extractive site plan
	17693	Explain and determine water flow, select pumps, and structures for an extraction site
	21151	Demonstrate knowledge of planning rehabilitation operations of an extractive site
	21152	Demonstrate and apply knowledge of storing explosives for use
	21153	Demonstrate and apply knowledge of dewatering, pump maintenance, and cleaning settling ponds at extraction sites
	21156	Plan, implement, and describe surface extraction production to minimise environmental impacts
	21278	Describe, install, and reassess support systems for an underground mine
	21280	Demonstrate knowledge of and design an effective ventilation system in an underground mine
	21281	Interpret and test gases in an underground extraction site

<b>CERTIFICATE OF COMPETENCE</b>	<b>UNIT STANDARD NUMBER</b>	<b>TITLE</b>
	21629	Evaluate and implement plans to manage old workings and inundations in underground sites
	21661	Demonstrate knowledge of the use of electrical reticulation plant and equipment in underground mines
	21662	Demonstrate knowledge of development and extraction plant and methods for underground coal mining
	21821	Supply, maintain, deliver, and store services for an underground mine
	21823	Analyse and select mining and transportation plant for underground coalmines
	22056	Demonstrate knowledge of theoretical mechanics for extractive industries
	22057	Demonstrate knowledge of fluid power systems used in underground mines and tunnels
	22445	Describe the role and functions of a CIMS Incident Management Team (IMT) at an incident
	25878	Demonstrate knowledge of crushing and screening plant for extractives industries
	26855	Analyse human factors present in workplace practices to determine how they contribute to incidents at an extractive site
	26856	Carry out the risk management processes at an extractive site
<b>FIRST AID UNIT STANDARDS</b>		
	6400	Manage first aid in an emergency situation
	6401	Provide first aid
	6402	Provide basic life support
<b>A-grade Opencast Coal Mine Manager</b>	7142	Demonstrate knowledge of the application of regulatory requirements to manage an extractive site
	7143	Inspect and report on extractive site and operations
	7144	Review and implement plans for ongoing operations of an extractive site
	8899	Plan storage for product processed at extractive sites
	8902	Prepare and implement safety plans for surface face and benching operations
	8905	Construct and maintain access roads within surface extraction sites
	8909	Maintain working surfaces at surface extraction sites
	8922	Conduct safety checks prior to equipment usage at an extractives site
	15658	Select excavation and transportation plant for surface extraction
	15663	Design and maintain stockpiles and sloping surfaces in surface excavations and stockpiles
	15664	Demonstrate knowledge of the geological nature of surface extraction sites
	15667	Demonstrate knowledge of extraction methods and the effects of geological features on these methods
	16686	Conduct an incident investigation at an extraction site
	17279	Demonstrate knowledge of the coordinated incident management system (CIMS)
	17694	Demonstrate knowledge of explosives and their properties
	21151	Demonstrate knowledge of planning rehabilitation operations of an extractives site

<b>CERTIFICATE OF COMPETENCE</b>	<b>UNIT STANDARD NUMBER</b>	<b>TITLE</b>
	21152	Demonstrate and apply knowledge of storing explosive for use
	21153	Demonstrate and apply knowledge of dewatering, pump maintenance, and cleaning settling ponds at extraction sites
	21155	Review consent conditions and demonstrate knowledge of the use of water at surface extraction sites
	21156	Plan, implement, and describe surface extraction production to minimise environmental impacts
	22445	Describe the roles and functions of a CIMS Incident Management Team (IMT) at an incident
	25878	Demonstrate knowledge of crushing and screening plant for extractive industries
	26855	Analyse human factors present in workplace practices to determine how they contribute to incidents at an extractive site
	26856	Carry out the risk management processes at an extractive site
	<b>FIRST AID UNIT STANDARDS</b>	
	6400	Manage first aid in an emergency situation
	6401	Provide first aid
	6402	Provide basic life support
<b>B-grade Opencast Coal Mine Manager</b>	8902	Prepare and implement safety plans for surface face and benching operations
	8905	Construct and maintain access roads within surface extraction sites
	8909	Maintain working surfaces at surface extraction sites
	8922	Conduct safety checks prior to equipment usage at an extractives site
	16686	Conduct an incident investigation at an extraction site
	17694	Demonstrate knowledge of explosives and their properties
	21152	Demonstrate and apply knowledge of storing explosive for use
	21153	Demonstrate and apply knowledge of dewatering, pump maintenance, and cleaning settling ponds at extraction sites
	21155	Review consent conditions and demonstrate knowledge of the use of water at surface extraction sites
	21156	Plan, implement, and describe surface extraction production to minimise environmental impacts
	26856	Carry out the risk management processes at an extractive site
	28742 or 7142	Explain the health and safety legislation, and supporting documents, applicable to an extractive site  Demonstrate knowledge of the application of regulatory requirements to manage an extractive site
	<b>FIRST AID UNIT STANDARDS</b>	
	6400	Manage first aid in an emergency situation
	6401	Provide first aid
	6402	Provide basic life support

<b>CERTIFICATE OF COMPETENCE</b>	<b>UNIT STANDARD NUMBER</b>	<b>TITLE</b>	
Coal Mine Deputy	2401	Safely shut down and isolate machines and equipment	
	3271	Suppress fire with hand extinguishers and fixed hose reels	
	7143	Inspect and report on extractive site and operations	
	7144	Review and implement plans for ongoing operations of an extractive site	
	7146	Demonstrate basic knowledge and ability required to work in an underground mine	
	8899	Plan storage for product processed at extractive sites	
	8922	Conduct safety checks prior to equipment usage at an extractives site	
	15672	Demonstrate knowledge of the Mines Rescue Service	
	16686	Conduct an incident investigation at an extraction site	
	17279	Demonstrate knowledge of the coordinated incident management system (CIMS)	
	17691	Use mathematics to solve problems in an extractive industries workplace	
	17694	Demonstrate knowledge of explosives and their properties	
	17705	Describe, develop, and maintain basic ventilation systems for an underground mine or tunnel	
	21152	Demonstrate and apply knowledge of storing explosive for use	
	21278	Describe, install and reassess support systems for an underground mine	
	21281	Interpret and test for gases in an underground extraction site	
	21661	Demonstrate knowledge of the use of electrical reticulation plant and equipment in underground mines	
	21662	Demonstrate knowledge of development and extraction plant and methods for underground coal mining	
	21629	Evaluate and implement plans to manage old workings and inundations in underground sites	
	21821	Supply, maintain, deliver, and store services for an underground mine	
	22057	Demonstrate knowledge of fluid power systems used in underground mines and tunnels	
	22445	Describe the roles and functions of a CIMS Incident Management Team (IMT) at an incident	
	26855	Analyse human factors present in workplace practices to determine how they contribute to incidents at an extractive site	
	26856	Carry out the risk management processes at an extractive site	
	28742 or 7142	Explain the health and safety legislation, and supporting documents, applicable to an extractive site  Demonstrate knowledge of the application of regulatory requirements to manage an extractive site	
	<b>FIRST AID UNIT STANDARDS</b>		
		6400	Manage first aid in an emergency situation
		6401	Provide first aid
		6402	Provide basic life support

<b>CERTIFICATE OF COMPETENCE</b>	<b>UNIT STANDARD NUMBER</b>	<b>TITLE</b>
Coal Mine Underviewer	2401	Safely shut down and isolate machines and equipment
	3271	Suppress fire with hand extinguishers and fixed hose reels
	7142	Demonstrate knowledge of the application of regulatory requirements to manage an extractive site
	7143	Inspect and report on extractive site and operations
	7144	Review and implement plans for ongoing operations of an extractive site
	7145	Design, establish, and maintain effective ventilation systems for an underground mine
	7146	Demonstrate basic knowledge and ability required to work in an underground mine
	8899	Plan storage for product processed at extractive sites
	8922	Conduct safety checks prior to equipment usage at an extractives site
	15666	Demonstrate knowledge of geology for underground extraction
	15672	Demonstrate knowledge of the Mines Rescue Service
	16686	Conduct an incident investigation at an extraction site
	17279	Demonstrate knowledge of the coordinated incident management system (CIMS)
	17691	Use mathematics to solve problems in an extractive industries workplace
	17694	Demonstrate knowledge of explosives and their properties
	17705	Describe, develop, and maintain basic ventilation systems for an underground mine or tunnel
	17743	Demonstrate knowledge of survey principles and apply to an extraction site
	17744	Read and interpret an underground extractive site plan
	21151	Demonstrate knowledge of planning rehabilitation operations of an extractives site
	21152	Demonstrate and apply knowledge of storing explosive for use
	21153	Demonstrate and apply knowledge of dewatering, pump maintenance, and cleaning settling ponds at extraction sites
	21278	Describe, install and reassess support systems for an underground mine
	21281	Interpret and test for gases in an underground extraction site
	21629	Evaluate and implement plans to manage old workings and inundations in underground sites
	21661	Demonstrate knowledge of the use of electrical reticulation plant and equipment in underground mines
	21662	Demonstrate knowledge of development and extraction plant and methods for underground coal mining
	21821	Supply, maintain, deliver, and store services for an underground mine
	21823	Analyse and select mining and transportation plant for underground coalmines
	22057	Demonstrate knowledge of fluid power systems used in underground mines and tunnels
	22445	Describe the roles and functions of a CIMS Incident Management Team (IMT) at an incident

CERTIFICATE OF COMPETENCE	UNIT STANDARD NUMBER	TITLE
	26855	Analyse human factors present in workplace practices to determine how they contribute to incidents at an extractive site
	26856	Carry out the risk management processes at an extractive site
<b>FIRST AID UNIT STANDARDS</b>		
	6400	Manage first aid in an emergency situation
	6401	Provide first aid
	6402	Provide basic life support
<b>Supervisor – Underground Metalliferous Mining Operation</b>	Hold a certificate of competence: <ul style="list-style-type: none"> <li>- B-grade tunnel manager; or</li> <li>- A-grade tunnel manager; or</li> <li>- First-class mine manager; or</li> <li>- First class coal mine manager</li> </ul>	
<b>Supervisor – Opencast Coal Mining Operation</b>	Hold a certificate of competence: <ul style="list-style-type: none"> <li>- B-grade opencast coal mine; or</li> <li>- A-grade opencast coal mine; or</li> <li>- First-class mine manager; or</li> <li>- First class coal mine manager</li> </ul>	
<b>Supervisor – Opencast Metalliferous Mining Operation</b>	Hold a certificate of competence: <ul style="list-style-type: none"> <li>- B-grade quarry manager; or</li> <li>- A-grade quarry manager; or</li> <li>- First-class mine manager; or</li> <li>- First class coal mine manager</li> </ul>	
<b>Mine Surveyor</b>	7142	Demonstrate knowledge of the application of regulatory requirements to manage an extractive site
	7146	Demonstrate basic knowledge and ability required to work in an underground mine
	15665	Demonstrate knowledge of the geology of surface extraction
	15666	Demonstrate knowledge of geology for underground extraction
	17741	Demonstrate specialist underground survey techniques
	17742	Survey and draw an underground extractive site plan
	17745	Survey and draw a surface extractive site plan
	The applicant must: <ol style="list-style-type: none"> <li>a. hold a New Zealand Diploma of Surveying, or a degree in surveying, conferred by a New Zealand university or other New Zealand tertiary institution, or hold a qualification in surveying from another institution, deemed equivalent by the New Zealand Qualifications Authority to a four-year Bachelor's degree in surveying or a New Zealand Diploma of Surveying; and</li> <li>b. have had at least three years' practical work experience in surveying including 12 months' work experience underground in the surveying of mines.</li> </ol>	
<b>FIRST AID UNIT STANDARDS</b>		
	6400	Manage first aid in an emergency situation
	6401	Provide first aid
	6402	Provide basic life support

<b>CERTIFICATE OF COMPETENCE</b>	<b>UNIT STANDARD NUMBER</b>	<b>TITLE</b>	
<b>Ventilation Officer</b>	2401	Safely shut down and isolate machines and equipment	
	3271	Suppress fire with hand extinguishers and fixed hose reels	
	7142	Demonstrate knowledge of the application of regulatory requirements to manage an extractive site	
	7145	Design, establish, and maintain effective ventilation systems for an underground mine	
	7146	Demonstrate basic knowledge and ability required to work in an underground mine	
	8922	Conduct safety checks prior to equipment usage at an extractives site	
	17691	Use mathematics to solve problems in an extractive industries workplace	
	17744	Read and interpret an underground extractive site plan	
	21280 or 23550	Demonstrate knowledge of and design an effective ventilation system in an underground mine	
	21821	Supply, maintain, deliver, and store services for an underground mine	
	<b>FIRST AID UNIT STANDARDS</b>		
	6400	Manage first aid in an emergency situation	
	6401	Provide first aid	
6402	Provide basic life support		
<b>Winding Engine Driver</b>	7164	Describe and operate a winding engine in an underground extractive site	
	<p>Demonstrate to the satisfaction of the Board that he or she has:</p> <p>a. the ability to operate a winder and respond to standard industry signals; and</p> <p>b. knowledge of, and the appropriate skill to respond to, emergency procedures.</p>		
<b>FIRST AID UNIT STANDARDS</b>			
	6400	Manage first aid in an emergency situation	
	6401	Provide first aid	
	6402	Provide basic life support	
<b>Mechanical superintendent</b>	2401	Safely shut down and isolate machines and equipment	
	7142	Demonstrate knowledge of the application of regulatory requirements to manage an extractive site	
	3271	Suppress fire with hand extinguishers and fixed hose reels	
	8922	Conduct safety checks prior to equipment usage at an extractives site	
	16686	Conduct an incident investigation at an extraction site	
	17279	Demonstrate knowledge of the coordinated incident management system (CIMS)	
	22445	Describe the roles and functions of a CIMS Incident Management Team (IMT) at an incident	
	22903	Demonstrate knowledge of modern manufacturing concepts and their significance in plant maintenance	
	22904	Demonstrate knowledge of modern engineering plant maintenance practice	
	22905	Perform planned maintenance work on mechanical equipment	
	26856	Carry out the risk management processes at an extractive site	

CERTIFICATE OF COMPETENCE	UNIT STANDARD NUMBER	TITLE
		<ol style="list-style-type: none"> <li>1. The applicant must: <ol style="list-style-type: none"> <li>a. hold a New Zealand national qualification in mechanical fitting or have a national qualification in mechanical engineering acceptable to the Board or hold a qualification in mechanical engineering from another institution, deemed equivalent by the New Zealand Qualifications Authority to a New Zealand national qualification in mechanical engineering, acceptable to the Board; and</li> <li>b. satisfy the Board that he or she has a minimum of three years' work experience acceptable to the Board in the extractives or heavy industry.</li> </ol> </li> <li>2. The applicant must: <ol style="list-style-type: none"> <li>a. hold a degree in mechanical engineering conferred by a New Zealand university or hold a qualification in mechanical engineering from another institution, deemed equivalent by the New Zealand Qualifications Authority to a four-year Bachelor's degree in mechanical engineering, acceptable to the Board; and</li> <li>b. satisfy the Board that he or she has one year's work experience acceptable to the Board in the extractive or heavy industry.</li> </ol> </li> </ol>

#### FIRST AID UNIT STANDARDS

6400	Manage first aid in an emergency situation
6401	Provide first aid
6402	Provide basic life support
<b>Electrical superintendent</b>	
2401	Safely shut down and isolate machines and equipment
7142	Demonstrate knowledge of the application of regulatory requirements to manage an extractive site
3271	Suppress fire with hand extinguishers and fixed hose reels
8922	Conduct safety checks prior to equipment usage at an extractives site
16686	Conduct an incident investigation at an extraction site
17279	Demonstrate knowledge of the coordinated incident management system (CIMS)
22445	Describe the roles and functions of a CIMS Incident Management Team (IMT) at an incident
22903	Demonstrate knowledge of modern manufacturing concepts and their significance in plant maintenance
22904	Demonstrate knowledge of modern engineering plant maintenance practice
22905	Perform planned maintenance work on mechanical equipment
26856	Carry out the risk management processes at an extractive site

1. The applicant must:
  - a. have a New Zealand national qualification as an electrician or have a national qualification in electrical engineering or hold a qualification in electrical engineering from another institution, deemed equivalent by the New Zealand Qualifications Authority to a New Zealand national qualification in electrical engineering, acceptable to the Board; and
  - b. satisfy the Board that he or she has a minimum of three years' work experience acceptable to the Board in the extractive or heavy industry.
2. The applicant must:
  - a. have a degree in electrical engineering conferred by a New Zealand university or by another university acceptable to the Board or has a qualification in electrical engineering from another institution, deemed equivalent by the New Zealand Qualifications Authority to a four-year Bachelor's degree in electrical engineering, acceptable to the Board; and
  - b. satisfy the Board that he or she has one year's work experience acceptable to the Board in the extractive or heavy industry.



CERTIFICATE OF COMPETENCE	UNIT STANDARD NUMBER	TITLE
	FIRST AID UNIT STANDARDS	
	6400	Manage first aid in an emergency situation
	6401	Provide first aid
	6402	Provide basic life support



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