

# **RII09 RESOURCES AND INFRASTRUCTURE TRAINING PACKAGE**

## **VERSION 3**

### **WA NOMINAL HOURS GUIDE**

**Western Australian Department of Training and Workforce  
Development**

**May 2012**

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## Introduction

This Guide has been generated to enable the stakeholders in the Resource and Infrastructure Industry in Western Australia to participate in the managed implementation of the National RII09 Resources and Infrastructure Training Package **Version 3**.

This Guide is designed to aid Registered Training Organisations (RTOs) to convert from existing Training Package qualifications to new Training Package qualifications within the scope of their training delivery.

The Guide should be read in conjunction with the **endorsed components** of the Training Package

RII09 Resources and Infrastructure Training Package **Version 3** was released by Training.Gov.Au (TGA) on the **21 March 2012**.

## Obtaining the Training Package

The RII09 Resources and Infrastructure Training Package can be purchased from:



Office: Level 9, 36 Carrington Street  
Sydney NSW 2000  
T: (02) 9299 3014 | F: (02) 9299 3014  
E: [skillsdmc@skillsdmc.com.au](mailto:skillsdmc@skillsdmc.com.au)  
W: [www.skillsdmc.com.au](http://www.skillsdmc.com.au)

Information on National Training Packages is also available through Training.Gov (TGA), which can be located on the Internet at: [www.training.gov.au](http://www.training.gov.au)

**All RTOs who have Training Package qualifications on their Scope of Delivery must have access to the relevant Training Package.**

## Version Modification History

The version details of this endorsed Training Package are in the table below.  
The latest information is at the top of the table.

Version	TGA Release Date	Modification History
3.0	21 March 2012	<p><b><i>Units of competency</i></b></p> <p><b>New</b></p> <ul style="list-style-type: none"> <li>• RIIBHD305 Conduct down-hole hammer drilling</li> <li>• RIICRC311 Conduct concrete road paver operations</li> <li>• RIICRC312 Setup and maintain concrete paver stringlines</li> <li>• RIICRC313 Conduct concrete road curing and texturing operations</li> <li>• RIICRC314 Handle concrete materials</li> <li>• RIICRC315 Use concreting materials and equipment</li> <li>• RIICRC316 Place and compact concrete</li> <li>• RIICRC317 Finish concrete pavements</li> <li>• RIICRC318 Cure concrete</li> <li>• RIICRC319 Saw and cut concrete pavements to initiate planned cracks</li> <li>• RIICRC320 Seal concrete pavements</li> <li>• RIICRC321 Use automated paving guidance systems</li> <li>• RIICRC322 Receive, check and record concrete deliveries</li> <li>• RIICRC323 Insert tie bars in fresh concrete</li> <li>• RIIDES301 Inspect, test and maintain diesel engine systems and their ancillary systems</li> <li>• RIIDES302 Inspect, test and maintain joints on diesel engine systems</li> <li>• RIIDES303 Inspect, test and maintain cooling systems on diesel engine systems</li> <li>• RIIDES304 Inspect, test and maintain inlet systems on diesel engine systems</li> <li>• RIIDES305 Inspect, test and maintain exhaust systems on diesel engine systems</li> <li>• RIIDES306 Inspect, test and maintain safety shutdown systems on diesel engine systems</li> <li>• RIIDES307 Test, determine the cause and rectify excessive emission levels on diesel engine systems</li> <li>• RIIMPO333 Conduct underground load, haul and dump truck operations</li> <li>• RIPEO302 Operate and monitor ore car dumpers</li> <li>• RIIUND310 Apply shot-crete underground</li> <li>• ISC Updates with code changes</li> <li>• RIIBHD304A to RIIBHD304B Set up and prepare for open cut drilling operations</li> <li>• RIIBLA203A to RIIBLA203B Conduct mobile mixing of explosives</li> <li>• RIICBS401A to RIICBS401B Apply the principles of asphalt paving and compaction</li> <li>• RIICBS402A to RIICBS402B Apply the principles for the application of bituminous sprayed treatment</li> <li>• RIICBS403A to RIICBS403B Apply the principles for the polymer modified binder</li> <li>• RIICBS404A to RIICBS404B Apply principles for the selection and use of bituminous emulsion</li> <li>• RIICRC406A to RIICRC406B Apply the principles of pavement maintenance</li> <li>• RIICWD524A to RIICWD524B Prepare design of sprayed seal surfacing</li> <li>• RIICWD525A to RIICWD525B Select pavement surfacing</li> <li>• RIICWM401A to RIICWM401B Supervise civil works</li> </ul>

- RIEGS305A to RIEGS305B Navigate in remote or trackless area
- RIERR203A to RIERR203B Escape from hazardous situation unaided
- RIIMPO205A to RIIMPO205B Operate roller / compactor
- RIIMPO206A to RIIMPO206B Conduct bulk water truck operations
- RIIMPO301B to RIIMPO301C Conduct hydraulic excavator operations
- RIIMPO307A to RIIMPO307B Conduct wheeled grader operations in underground mines
- RIIMPO310A to RIIMPO310B Conduct grader operations
- RIINHB210A to RIINHB210B Assist surface directional drilling
- RIINHB324A to RIINHB324B Carry out grouting or cementing operations
- RIIPRO301B to RIIPRO301C Conduct crushing and screening operations
- RIIRIS301A to RIIRIS301B Apply risk management processes
- RIISAM203A to RIISAM203B Use hand and power tools
- RIISAM204A to RIISAM204B Operate small plant and equipment
- RIIVEH203A to RIIVEH203B Operate light vehicle underground
- RIIVEH304A to RIIVEH304B Conduct tip truck operations
- RIIWBP203A to RIIWBP203B Monitor tailings dam environment

#### **ISC Updates – no code changes**

- RIIHAN201A Operate a forklift
- RIIHAN208A Perform dogging
- RIIHAN209A Perform basic rigging
- RIIHAN210A Perform intermediate rigging operations
- RIIHAN211A Conduct basic scaffolding operations
- RIIHAN212A Conduct non-slewing crane operations
- RIIHAN213A Work effectively in the drilling industry
- RIIHAN301B Operate elevating work platform
- RIIHAN302A Conduct intermediate scaffolding
- RIIHAN304A Conduct slewing crane operations
- RIIHAN305A Operate a gantry or overhead crane
- RIIHAN307A Operate a vehicle loading crane

#### **Removed**

- RIISAM206A Operate equipment services vehicle underground

#### **Imported units**

33 superseded units replaced with current equivalent unit of competency

#### **Qualifications**

##### **Endorsement required changes**

- RII20712 Certificate II in Civil Construction
- RII30112 Certificate III in Surface Extraction Operations
- RII30212 Certificate III in Underground Coal Operations
- RII30912 Certificate III in Civil Construction
- RII40212 Certificate IV in Surface Coal Mining (Open Cut Examiner)
- RII40412 Certificate IV in Coal Underground Operations
- RII40712 Certificate IV in Civil Construction Supervision
- RII50912 Diploma of Underground Coal Mining Management
- RII60312 Advanced Diploma of Underground Coal Mining Management

##### **Qualifications removed**

- RII31009 Certificate III in Bituminous Surfacing
- RII31109 Certificate III in Bridge Construction and Maintenance
- RII31309 Certificate III in Pipe Laying
- RII31409 Certificate III in Road Construction and Maintenance
- RII31509 Certificate III in Road Marking
- RII31709 Certificate III in Tunnel Construction
- RII32109 Certificate III in Timber Bridge Construction and Maintenance

#### **ISC Updates**

		<p>All qualifications – Title for Mandatory Units changed to Core Units, Elective titles changed from Specialist Electives and General Electives to Group (#) Electives in accordance with Flexibility in Packaging Rules requirements.</p> <p>Non-regulated occupations: Amendment to packaging rules to allow for units of competency from accredited courses to be imported</p> <ul style="list-style-type: none"> <li>• RII10109 Certificate I in Resources and Infrastructure Operations</li> <li>• RII20109 Certificate II in Resources and Infrastructure Work Preparation</li> <li>• RII20609 Certificate II in Mining Field/Exploration Operations</li> <li>• RII20712 Certificate II in Civil Construction</li> <li>• RII20809 Certificate II in Bituminous Surfacing</li> <li>• RII30912 Certificate III in Civil Construction</li> <li>• RII31609 Certificate III in Trenchless Technology</li> <li>• RII40609 Certificate IV in Civil Construction Operations</li> <li>• RII40712 Certificate IV in Civil Construction Supervision</li> <li>• RII40809 Certificate IV in Civil Construction Design</li> <li>• RII50309 Diploma of Minerals Processing</li> <li>• RII50409 Diploma of Civil Construction Management</li> <li>• RII50509 Diploma of Civil Construction Design</li> <li>• RII60509 Advanced Diploma of Civil Construction Design</li> <li>• RII60609 Advanced Diploma of Civil Construction</li> </ul> <p><b>Other qualification ISC updates</b></p> <ul style="list-style-type: none"> <li>• RII10109 Certificate I in Resources and Infrastructure Operations</li> <li>• RII30311 Certificate III in Underground Metalliferous Mining</li> <li>• RII30411 Certificate III in Resource Processing</li> <li>• RII31609 Certificate III in Trenchless Technology</li> <li>• RII31809 Certificate III in Drilling Operations</li> <li>• RII40311 Certificate IV in Metalliferous Mining Operations (Underground)</li> <li>• RII40909 Certificate IV in Drilling Operations</li> <li>• RII50409 Diploma of Civil Construction Management</li> </ul> <p><b>New skills sets</b></p> <ul style="list-style-type: none"> <li>• Skill Set Explosion Protected Diesel Engine Systems Maintenance</li> <li>• Skill Set Work Zone Traffic Control – Road Labourer</li> <li>• Skill Set Work Zone Traffic Control – Traffic Controller</li> <li>• Skill Set Work Zone Traffic Control – Implement Traffic Control Guidance Plan</li> <li>• Skill Set Work Zone Traffic Control – Supervisor</li> <li>• Skill Set Work Zone Traffic Control Guidance Plan – Developer</li> <li>• Skill Set Work Zone Traffic Control – Auditor / Inspector</li> <li>• Skill Set Surface Coal Mine Safety</li> <li>• Skill Set Underground Coal Mine Safety</li> </ul>
2.0	22 June 2011	<ul style="list-style-type: none"> <li>• RIIHAN303A Conduct integrated tool carrier operations replaced with new unit RIIHAN311A Conduct operations with integrated tool carrier</li> <li>• RIIMCP201A Monitor coal preparation plant operations replaced with new RIIMCP301A Monitor operations in coal preparation plant</li> <li>• RIINHB204A Assist air drilling replaced with new unit RIINHB219A Assist with air drilling</li> <li>• RIINHB321A Construct single aquifer production bores replaced with new unit RIINHB325A Construct and complete single aquifer bores</li> <li>• RIIPBP201A Control acid plant operations replaced with new unit RIIPBP302A Control operations in acid plant</li> <li>• RIWWMG204A Reclaim and treat water system replaced with new unit RIWWMG302A Reclaim and treat water</li> <li>• RII30109 Certificate III in Surface Extraction Operations replaced with RII30111 Certificate III in Surface Extraction Operations</li> <li>• RII30309 Certificate III in Underground Metalliferous Mining replaced with RII30311 Certificate III in Underground Metalliferous Mining</li> <li>• RII30409 Certificate III in Resource Processing replaced with</li> <li>• RII30411 Certificate III in Resource Processing</li> </ul>

- RII30609 Certificate III in Small Mining Operations replaced with RII30611 Certificate III in Small Mining Operations
- RII40309 Certificate IV in Metalliferous Mining Operations (Underground) replaced with RII40311 Certificate IV in Metalliferous Mining Operations
- RII40409 Certificate IV in Underground Coal Operations replaced with RII40411 Certificate IV in Underground Coal Operations

**New Skill Set**

Skill Set Supervision of Indigenous Employees

**Other New Units of Competency:**

- RIICOM302A Communicate workplace information
- RIIENV302A Apply environmentally sustainable work practices RIIFIA401A Manage financial records
- RIILAT401A Provide leadership in the supervision of Indigenous employees
- RIIMPO331A Conduct operations with stockpile dozer
- RIIMPO332A Conduct operations with skid steer loader
- RIIVEH307A Operate heavy rigid vehicle

**Additional imported units:**

- NWP331B Inspect conduit and report on condition and features (for operators)
- NWP440A Supervise conduit inspection and reporting (for supervisors and managers)

**ISC Upgrades - Updated units of competency - codes changed to Version B:**

- RIIBEF201B Plan and organise work
- RIIBLA202B Support underground shotfiring operations
- RIICOM301B Communicate information
- RIIEGS202B Conduct field work
- RIIERR401B Apply and monitor surface operations emergency preparedness and response procedures
- RIIGOV401B Apply, monitor and report on compliance systems
- RIIHAN301B Operate elevating work platform
- RIIMEX203B Break oversize rock
- RIIMEX302B Assess ground conditions
- RIIMEX404B Apply and monitor systems for stable mining
- RIIMPO301B Conduct hydraulic excavator operations
- RIIMPO302B Conduct hydraulic shovel operations
- RIIMPO304B Conduct wheel loader operations
- RIIMPO305B Conduct coal stockpile dozer operations
- RIIMPO308B Conduct tracked dozer operations
- RIIMPO318B Conduct civil construction skid steer loader operations
- RIIMPO313B Conduct face loader operations
- RIIMPO321B Conduct civil construction wheeled front end loader operations
- RIINHB201B Load, secure and unload drilling equipment and materials
- RIINHB208B Assist diamond core drilling
- RIINHB304B Conduct air drilling
- RIINHB307B Conduct conventional core drilling
- RIINHB412B Construct geothermal wells
- RIIPBE205B Conduct roasting operations
- RIIPBE303B Conduct filtering operations
- RIIPBE304B Conduct heavy media separation
- RIIPBE308B Conduct thickening and clarifying process
- RIIPBE309B Conduct wet gravity separation
- RIIPBE310B Conduct flotation process



		<ul style="list-style-type: none"> <li>• RIIPBE311B Conduct magnetic separation</li> <li>• RIPEO201B Conduct conveyor operations</li> <li>• RIPEO203B Conduct stacker operations</li> <li>• RIIPRO301B Conduct crushing and screening plant operations</li> <li>• RIIRAI501B Implement mine transport and production equipment</li> <li>• RIIRAI503B Implement site services and infrastructure systems</li> <li>• RIIRIS201B Conduct local risk control</li> <li>• RIISAM211B Remove, repair and refit tyres and tubes</li> <li>• RIISAM502B Manage general drilling equipment maintenance</li> <li>• RIISRM301B Blend stockpile materials</li> <li>• RIISRM302B Conduct stockpile reclaiming operations RIISRM303B Move and position materials to form stockpiles</li> <li>• RIISRM304B Maintain stockpiles</li> <li>• RIUND401B Apply and monitor the ventilation management plan</li> <li>• RIIVEH201B Operate light vehicle</li> </ul>
1	2 September 2009	<p>This training package is the result of the rationalisation and consolidation of all six existing Resources and Infrastructure Training Packages:</p> <ul style="list-style-type: none"> <li>• RII06 Civil Construction Training Package, V1, release date 14 July 2006;</li> <li>• MNQ03 Extractive Industries Training Package, V1.1, release date 18 January 2008;</li> <li>• MNM05 Metalliferous Mining Training Package, Version 1.1, release date 6 April 2007;</li> <li>• DRT03 Drilling Training Package, Version 2, release date 25 May 2007;</li> <li>• MNC04 Coal Training Package, version 2, release date 16 January 2008;</li> <li>• BCC03 Civil Construction Training Package, version 3, release date 07 September 2007.</li> </ul> <p>This RII09 Resources and Infrastructure Industry Training Package covers Skill Sets and AQF level Qualifications at Certificate I, Certificate II, Certificate III, Certificate IV, Diploma and Advanced Diploma.</p>

## Transition Arrangements

Registered Training Organisations (RTOs) are required to deliver Training Package qualifications within 12 months of the release date of the Training Package on to Training.gov.au (TGA).

Students currently enrolled in an existing version of the Training Package qualification should be permitted to complete the program they enrolled in initially, unless the move to the related qualification from a Training Package can be made without disadvantage to a student.

## Nominal Hours

The Commonwealth Department of Employment, Education and Workplace Relations' definition of nominal hours states:

***“The value assigned to a structured program of study that nominally represents the anticipated hours of supervised learning and/or training deemed necessary to conduct training/learning and assessment activities associated with the program of study”***

Source: National Quality Council Training Package Glossary Version V2.1  
17/03/2010

<http://www.deewr.gov.au/Skills/Overview/Policy/TPDH/Downloads/Documents/TrainingPackGlossary.pdf>

Nominal hours are identified for each Training Package qualification. Total nominal hours may vary within a qualification depending on the units of competency

In Western Australia, nominal hours are used as a mechanism for funding allocation.

## Licensing Requirements

There are both licensed and non-licensed units of competency relating to high risk work in the RII09 Resources and Infrastructure Industry Training Package. To be appointed under any statutory requirements in related roles, units of competency should be demonstrated to meet the state/territory licensing requirements. State/territory licensing requirements need to be confirmed by the Registered Training Organisation delivering and/or assessing the competency.

## Qualifications and Nominal Hours

The following table provides a summary of the qualifications and nominal hours in the RII09 Resources and Infrastructure Training Package

National ID	Qualification Title	Nominal Hours
RII10109	Certificate I in Resources and Infrastructure Operations	180
RII20109	Certificate II in Resources and Infrastructure Work Preparation	220
RII20209	Certificate II in Surface Extraction Operations	300
RII20309	Certificate II in Underground Coal Mining	320
RII20409	Certificate II in Underground Metalliferous Mining	260
RII20509	Certificate II in Resource Processing	380
RII20609	Certificate II in Mining Field/Exploration Operations	720
RII20712	Certificate II in Civil Construction	388
RII20809	Certificate II in Bituminous Surfacing	356
RII20909	Certificate II in Drilling Operations	406
RII21009	Certificate II in Drilling Oil/Gas (Off shore)	380
RII21109	Certificate II in Drilling Oil/Gas (On shore)	375
RII30112	Certificate III in Surface Extraction Operations	490
RII30212	Certificate III in Underground Coal Operations	646
RII30311	Certificate III in Underground Metalliferous Mining	485
RII30411	Certificate III in Resource Processing	460
RII30509	Certificate III in Mining Exploration	945
RII30611	Certificate III in Small Mining Operations	800
RII30709	Certificate III in Mine Emergency Response and Rescue	540
RII30809	Certificate III in Civil Construction Plant Operations	644
RII30912	Certificate III in Civil Construction	718
RII31209	Certificate III in Civil Foundations	616
RII31609	Certificate III in Trenchless Technology	750
RII31809	Certificate III in Drilling Operations	470
RII31909	Certificate III in Drilling Oil/Gas (Off shore)	410
RII32009	Certificate III in Drilling Oil/Gas (On shore)	360
RII40109	Certificate IV in Surface Extraction Operations	550
RII40212	Certificate IV in Surface Coal Mining (Open Cut Examiner)	850
RII40311	Certificate IV in Metalliferous Mining Operations (Underground)	720
RII40412	Certificate IV in Underground Coal Operations	850
RII40509	Certificate IV in Resource Processing	650
RII40609	Certificate IV in Civil Construction Operations	610
RII40712	Certificate IV in Civil Construction Supervision	540
RII40809	Certificate IV in Civil Construction Design	594
RII40909	Certificate IV in Drilling Operations	445
RII41009	Certificate IV in Drilling Oil/Gas (Off shore)	460
RII41109	Certificate IV in Drilling Oil/Gas (On shore)	320
RII50109	Diploma of Surface Operations Management	920
RII50209	Diploma of Underground Metalliferous Mining Management	850
RII50309	Diploma of Minerals Processing	920
RII50409	Diploma of Civil Construction Management	710
RII50509	Diploma of Civil Construction Design	1004
RII50609	Diploma of Drilling Operations	610
RII50709	Diploma of Drilling Oil/Gas (Off shore)	810
RII50809	Diploma of Drilling Oil/Gas (On shore)	480

National ID	Qualification Title	Nominal Hours
RII50912	Diploma of Underground Coal Mining Management	760
RII60109	Advanced Diploma of Metalliferous Mining	1150
RII60209	Advanced Diploma of Extractive Industries Management	1095
RII60312	Advanced Diploma of Underground Coal Mining Management	890
RII60409	Advanced Diploma of Drilling Management	540
RII60509	Advanced Diploma of Civil Construction Design	795
RII60609	Advanced Diploma of Civil Construction	875
RII60709	Advanced Diploma of Surface Coal Mining	1115

## Units of Competency and Nominal Hours

The following table provides a summary of the units of competency and nominal hours in the industry RIIO9 Resources and Infrastructure Training Package

National ID	Unit Title	Nominal Hours
RIIBEF201B	Plan and organise work	16
RIIBEF202A	Identify and rectify site operating problems	30
RIIBEF301A	Run on-site operations	30
RIIBEF302A	Monitor site production activities	40
RIIBEF401A	Manage non-routine, complex technical situations	40
RIIBEF402A	Supervise on-site operations	30
RIIBEF601A	Conduct business negotiations	60
RIIBEF602A	Establish and evaluate operational performance management systems	60
RIIBEF603A	Manage decision making process	40
RIIBEF604A	Conduct feasibility study	70
RIIBEF605A	Resource site plans and objectives	80
RIIBHD301A	Conduct surface blast hole drilling operations	80
RIIBHD302A	Conduct underground development drilling	60
RIIBHD303A	Conduct long hole drilling	30
RIIBHD304B	Set up and prepare for open-cut drilling operations	40
<b>RIIBHD305</b>	<b>Conduct drown-hole hammer drilling</b>	<b>40</b>
RIIBHD401A	Supervise blast hole drilling operations	45
RIIBHD501A	Manage blast hole drilling operations	50
RIIBLA201A	Support shotfiring operations	80
RIIBLA202B	Support underground shotfiring operations	80
RIIBLA203B	Conduct mobile mixing of explosives	40
RIIBLA204A	Store, handle and transport explosives in underground coal mines	20
RIIBLA205A	Store, handle and transport explosives	30
RIIBLA301A	Conduct surface shotfiring operations	80
RIIBLA302A	Conduct shotfiring operations in underground coal mines	80
RIIBLA303A	Conduct underground development shotfiring	80
RIIBLA304A	Conduct underground production shotfiring	80
RIIBLA305A	Conduct secondary blasting	20
RIIBLA306A	Conduct accretion firing	40
RIIBLA307A	Conduct blast survey	20
RIIBLA401A	Manage blasting operations	40
RIIBLA402A	Monitor and control the effects of blasting on the environment	20
RIIBLA601A	Design surface blasts	60
RIIBLA602A	Establish and maintain a blasting system	80
RIICAR301A	Rehabilitate exploration site	50
RIICAR302A	Rehabilitate small mine site	60
RIICAR401A	Supervise rehabilitation operations	20
RIICBM201A	Strip pile heads	16
RIICBM301A	Maintain concrete bridges	68
RIICBM302A	Install pre-cast girders	68
RIICBM303A	Install pre-cast parapets	68
RIICBM304A	Operate a bridge inspection unit	68
RIICBM305A	Install pre-cast concrete bridge decks	68
RIICBM306A	Undertake concreting work on concrete bridges	68
RIICBM307A	Construct formwork and false work on concrete bridges	92

RIICBS201A	Conduct tack coat spraying operations	16
RIICBS202A	Hand spread asphalt	16
RIICBS203A	Safely handle bituminous materials	16
RIICBS204A	Conduct aggregate spreader box operations	16
RIICBS205A	Roll aggregate in sprayed sealing operations	24
RIICBS206A	Conduct pavement sweeping operations	16
RIICBS207A	Take samples of materials used in road surfacing	8
RIICBS208A	Conduct road maintenance operations	28
RIICBS301A	Conduct profile planer operations	68
RIICBS302A	Conduct paver screeding operations	48
RIICBS303A	Conduct materials transfer vehicle operations	48
RIICBS304A	Compact asphalt with rollers	36
RIICBS305A	Conduct asphalt paver operations	44
RIICBS306A	Conduct slurry sealing operations	68
RIICBS307A	Conduct bitumen sprayer operations	84
RIICBS308A	Load aggregate using a purpose built loader	16
RIICBS309A	Conduct self-propelled aggregate spreader operations	24
RIICBS310A	Conduct patching operations	52
RIICBS311A	Produce asphalt products	84
RIICBS312A	Conduct bitumen tanker operations	52
RIICBS401B	Apply the principles for the asphalt paving and compaction	40
RIICBS402B	Apply the principles for the application of bituminous sprayed treatment	45
RIICBS403B	Apply the principles for the application of polymer modified binder	25
RIICBS404B	Apply the principles for the selection and use of bituminous emulsion	20
RIICBS405A	Apply the principles for the application of slurry surfacing	40
RIICBS406A	Apply the principles of pavement profiling using a profiler	30
RIICBS407A	Apply the principles for the manufacture and delivery of hot mix asphalt	40
RIICBS408A	Apply the principles for the manufacture of cold mix	40
RIICBS409A	Apply the principles for the manufacture of polymer modified binder	40
RIICBS410A	Apply the principles for the manufacture of bituminous emulsion	40
RIICBS411A	Apply the principles for the manufacture of slurry surfacing	40
RIICCM201A	Carry out measurements and calculations	16
RIICCM202A	Identify, locate and protect underground services	24
RIICCM203A	Read and interpret plans and specifications	32
RIICCM204A	Place and fix reinforcement materials	40
RIICCM205A	Carry out manual excavation	8
RIICCM206A	Support plant operations	8
RIICCM207A	Spread and compact materials manually	12
RIICCM208A	Carry out basic levelling	8
RIICCM209A	Carry out concrete work	36
RIICCM210A	Install trench support	8
RIICCM211A	Erect and dismantle temporary fencing and gates	32
RIICCM301A	Construct and dismantle fences and gates	32
RIICCR401A	Develop and maintain positive community relations	20
RIICCR501A	Conduct sales in construction materials operations	70
RIICCR601A	Manage customer relationships	30
RIICFW301A	Construct underpinning	52
RIICFW302A	Install temporary and permanent rock anchors	20
RIICFW303A	Install primary ground support	20

RIICFW304A	Conduct pile driving operations	32
RIICFW305A	Conduct cast in-situ pilings operations	32
RIICFW306A	Direct pile driving operations	20
RIICFW307A	Direct cast in-situ piling operations	20
RIICOM201A	Communicate in the workplace	20
RIICOM301B	Communicate information	20
RIICOM302A	Communicate workplace information	40
RIICPL301A	Install water mains pipelines	36
RIICPL302A	Install storm water systems	36
RIICPL303A	Install sewer pipelines	36
RIICPL304A	Install pre-cast gully pits	36
RIICPL305A	Install pre-cast access chambers	36
RIICPL401A	Apply the principles for the installation of underground service using open excavation	60
RIICRC201A	Repair potholes	28
RIICRC202A	Install signs	12
RIICRC203A	Install sub-soil drainage	16
RIICRC204A	Install and maintain roadside fixtures	24
RIICRC205A	Install utility poles	32
RIICRC206A	Install pre-cast concrete crash barriers	32
RIICRC207A	Install noise barriers	32
RIICRC208A	Lay pipes	32
RIICRC209A	Lay reinforced concrete box culverts	32
RIICRC301A	Maintain drainage systems	12
RIICRC302A	Place and form concrete kerb, channel and fixtures	28
RIICRC303A	Lay pavers	20
RIICRC304A	Maintain sealed roads	24
RIICRC305A	Conduct road construction paver screeding operations	48
RIICRC306A	Conduct earthworks	68
RIICRC307A	Conduct road pavement construction	20
RIICRC308A	Conduct paver operations	68
RIICRC309A	Conduct stabiliser operations	68
RIICRC310A	Construct and maintain roads	60
RIICRC311	Conduct concrete road paver operations	60
RIICRC312	Setup and maintain concrete paver stringlines	40
RIICRC313	Conduct concrete road curing and texturing operations	24
RIICRC314	Handle concrete materials	24
RIICRC315	Use concreting materials and equipment	60
RIICRC316	Place and compact concrete	170
RIICRC317	Finish concrete pavements	40
RIICRC318	Cure concrete	16
RIICRC319	Saw and cut concrete pavements to initiate planned cracks	16
RIICRC320	Seal concrete pavements	12
RIICRC321	Use automated paving guidance systems	80
RIICRC322	Recieve, check and record concrete deliveries	8
RIICRC323	Insert tie bars in fresh concrete	8
RIICRC401A	Apply the principles of flexible pavement construction	50
RIICRC402A	Apply the principles of rigid pavement construction	30
RIICRC403A	Apply the principles of the stabilisation of materials	50
RIICRC404A	Inspect and report on pavement condition	24
RIICRC405A	Carry out pavement condition measurement	50
RIICRC406B	Apply the principles of pavement maintenance	50
RIICRM201A	Escort mobile road marking operations	20
RIICRM202A	Handle and store road marking materials	8

RIICRM203A	Conduct pedestrian road marking operations	20
RIICRM204A	Prepare surface for road marking	12
RIICRM205A	Conduct road marking measuring operations	12
RIICRM206A	Conduct airless and atomised spraying operations	16
RIICRM207A	Install raised pavement markers	12
RIICRM301A	Conduct ride on road marking operations	12
RIICRM302A	Conduct long line road marking operations	32
RIICRM303A	Conduct thermo plastic road marking operations	24
RIICSG401A	Apply the principles of civil concrete structures construction	60
RIICSG402A	Apply the principles of civil steel structures construction	60
RIICSG403A	Apply the principles of civil timber structures construction	60
RIICSG404A	Apply the principles of civil masonry, crib and gabion structure construction	60
RIICSG405A	Carry out inspections of civil structures	60
RIICSG406A	Apply principles of maintenance of civil structures	60
RIICTB201A	Maintain timber bridges	30
RIICTB202A	Apply bridge durability treatment	55
RIICTB203A	Produce drawings and sketches	20
RIICTB301A	Undertake visual inspection	55
RIICTB302A	Install temporary support members	30
RIICTB303A	Erect a temporary modular support system (bailey) on an existing bridge	40
RIICTB304A	Install or replace sub-structure members	40
RIICTB305A	Install or replace super-structure members	40
RIICTB306A	Splice and connect timber members	30
RIICTB307A	Assemble a temporary modular bridge	40
RIICTB308A	Install or replace truss members	30
RIICTB309A	Construct, maintain and remove coffer dams	50
RIICTB310A	Construct specialised timber deck systems	55
RIICTC301A	Install tunnelling constructions services	68
RIICTC302A	Line tunnel	68
RIICTC303A	Excavate tunnel by machine	24
RIICTC304A	Muck out tunnel earthworks	12
RIICTC305A	Construct portals	20
RIICTC401A	Apply the principles of tunnel construction	60
RIICTT301A	Conduct fluid assisted directional boring	68
RIICTT302A	Conduct impact moling, ramming and augering	68
RIICTT303A	Control micro tunnelling and pipejacking	68
RIICTT304A	Undertake on-line replacement for existing pipeline systems	68
RIICTT305A	Undertake localised repair and sealing of existing pipeline systems	68
RIICTT306A	Install cure in-place linings for existing pipeline systems	68
RIICTT307A	Spray linings for existing pipeline systems	68
RIICTT308A	Install close-fit linings for existing pipeline systems	68
RIICTT309A	Install slip lining in existing pipeline systems	68
RIICTT310A	Renovate large diameter pipes and chambers	68
RIICTT401A	Apply the principles for the installation of underground services using trenchless technology	60
RIICTT402A	Apply the principles for the repair and rehabilitation of underground services using trenchless technology	60
RIICWD501A	Prepare detailed design of foundations	60
RIICWD502A	Prepare detailed design of lighting	60
RIICWD503A	Prepare work zone traffic management plan	30
RIICWD504A	Prepare detailed design of environmental controls	60
RIICWD505A	Prepare detailed design of landscaping	60



RIICWD506A	Prepare detailed design of canals	60
RIICWD507A	Prepare detailed geotechnical design	60
RIICWD508A	Prepare detailed design of rural roads	60
RIICWD509A	Prepare detailed design of urban roads	60
RIICWD510A	Prepare detailed design of busways	60
RIICWD511A	Prepare detailed design of sub-divisions	60
RIICWD512A	Prepare detailed design of motorways and interchanges	60
RIICWD513A	Prepare detailed design of rail civil infrastructure	60
RIICWD514A	Prepare detailed design of dams	60
RIICWD515A	Prepare detailed design of airfield civil works	60
RIICWD516A	Prepare detailed design of bicycle ways	50
RIICWD517A	Prepare detailed design of industrial hardstands	60
RIICWD518A	Prepare detailed design of open car parks	50
RIICWD519A	Prepare detailed design of intermodal facilities civil works	60
RIICWD520A	Prepare detailed design of rigid pavements	60
RIICWD521A	Prepare detailed design of flexible pavements	60
RIICWD522A	Prepare stabilised material mix design	60
RIICWD523A	Prepare asphalt mix design	36
RIICWD524B	Prepare design of spray seal surfacing	60
RIICWD525B	Select pavement surfacing	36
RIICWD526A	Prepare detailed traffic analysis	60
RIICWD527A	Prepare detailed design of traffic signals	60
RIICWD528A	Prepare detailed design of traffic management systems	60
RIICWD529A	Prepare detailed design of underground services	60
RIICWD530A	Prepare detailed design of surface drainage	60
RIICWD531A	Prepare detailed design of subsurface drainage	60
RIICWD532A	Prepare detailed design of tunnels	60
RIICWD533A	Prepare detailed design of civil concrete structures	60
RIICWD534A	Prepare detailed design of civil steel structures	60
RIICWD535A	Prepare detailed design of civil timber structures	60
RIICWD536A	Prepare detailed design of civil masonry, crib and gabion structures	60
RIICWD537A	Prepare detailed design of marine structures civil works	70
RIICWD601A	Manage the civil works design process	180
RIICWM401B	Supervise civil works	80
RIICWM402A	Supervise civil works contractors	60
RIICWM501A	Implement civil construction plan	70
RIICWM502A	Implement civil works maintenance program	70
RIICWM503A	Prepare civil works cost estimate	60
RIICWM504A	Prepare civil works bill of quantities	60
RIICWM505A	Prepare civil works schedule of rates	60
RIICWM601A	Establish civil constructions plans	180
RIICWM602A	Establish civil works maintenance programs	180
RIIDES301	Inspect, test and maintain diesel engine systems and their ancillary systems	80
RIIDES302	Inspect, test and maintain joints on diesel engine systems	40
RIIDES303	Inspect, test and maintain cooling systems on diesel engine systems	20
RIIDES304	Inspect, test and maintain inlet systems on diesel engine systems	20
RIIDES305	Inspect, test and maintain exhaust systems on diesel engine systems	20
RIIDES306	Inspect, test and maintain safety shutdown systems on diesel engine systems	40

RIIDES307	Test, determine the cause and rectify excessive emission levels on diesel engine systems	20
RIIDML401A	Apply the principles of demolitions	60
RIIEGS201A	Operate in isolated and remote situations	50
RIIEGS202B	Conduct field work	160
RIIEGS301A	Operate and maintain instruments and field equipment	120
RIIEGS302A	Plan and undertake field trip	120
RIIEGS303A	Provide geological field assistance	100
RIIEGS304A	Mobilise equipment and materials	60
RIIEGS305B	Navigate in remote or trackless areas	20
RIIEGS306A	Prepare drill site	40
RIIENV201A	Identify and assess environmental and heritage concerns	20
RIIENV202A	Suppress airborne contaminants	20
RIIENV301A	Conduct atmospheric monitoring	40
RIIENV302A	Apply environmentally sustainable work practices	15
RIIENV401A	Supervise dust and noise control	40
RIIENV402A	Implement and monitor environmental policies	40
RIIENV501A	Implement and maintain environmental management plan	60
RIIENV502A	Undertake process or project environmental impact assessment	80
RIIENV601A	Establish and maintain the environmental management system	90
RIIERR201A	Conduct fire team operations	16
RIIERR202A	Contribute to the control of emergencies and critical situations	25
RIIERR203A	Escape from hazardous situation unaided	40
RIIERR204A	Provide aided rescue to endangered personnel	40
RIIERR205A	Apply initial response First Aid	20
RIIERR301A	Respond to mine incident	40
RIIERR302A	Respond to local emergencies and incidents	20
RIIERR303A	Operate in self-contained regenerative oxygen breathing apparatus	40
RIIERR304A	Control emergencies and critical situations	30
RIIERR305A	Control underground fires	40
RIIERR306A	Conduct underground search	40
RIIERR307A	Extricate casualties from underground incident	40
RIIERR308A	Extricate and transport people involved in incidents	40
RIIERR309A	Establish and operate from fresh air base	40
RIIERR310A	Provide support for rescue operations	40
RIIERR311A	Assess and implement life support systems and stabilise casualties	40
RIIERR401B	Apply and monitor surface operations emergency preparedness and response procedures	80
RIIERR402A	Apply and monitor underground operations emergency preparedness and response procedures	60
RIIERR403A	Lead rescue team	40
RIIERR404A	Apply and monitor underground metalliferous mine emergency preparedness and response procedures	60
RIIERR501A	Implement underground coal mine emergency preparedness and response systems	60
RIIERR503A	Implement emergency preparedness and response systems	80
RIIERR504A	Manage major incidents and emergencies	70
RIIERR601A	Establish and maintain mine emergency preparedness and response systems	100
RIIERR602A	Establish and maintain underground coal mine emergency preparedness and response systems	80
RIIGOV201A	Comply with site work processes/procedures	20

RIIGOV401B	Apply, monitor and report on compliance systems	80
RIIGOV501A	Identify, implement and maintain legal compliance requirements	80
RIIGOV601A	Establish, maintain and develop a statutory compliance management system	80
RIIHAN201A	Operate a forklift	40
RIIHAN202A	Handle and store cargo	20
RIIHAN203A	Conduct lifting operations	30
RIIHAN204A	Load and unload cargo/goods	30
RIIHAN205A	Secure Cargo	30
RIIHAN206A	Transport plant, equipment and personnel	30
RIIHAN207A	Operate personnel and materials hoists	20
RIIHAN208A	Perform dogging	40
RIIHAN209A	Perform basic rigging	40
RIIHAN210A	Perform intermediate rigging operations	40
RIIHAN211A	Conduct basic scaffolding operations	40
RIIHAN212A	Conduct non-slewing crane operations	40
RIIHAN213A	Work effectively in the drilling industry	18
RIIHAN301B	Operate elevating work platform	20
RIIHAN302A	Conduct intermediate scaffolding operations	100
RIIHAN311A	Conduct operations with integrated tool carrier	68
RIIHAN304A	Conduct slewing crane operations	50
RIIHAN305A	Operate a gantry or overhead crane	40
RIIHAN306A	Carry out lifting using multiple cranes	40
RIIHAN307A	Operate a loading crane	40
RIIHAN308A	Load and unload plant	16
RIIHAN309A	Conduct telescopic materials handler operations	80
RIIHAN310A	Conduct crane operations underground	35
RIIHAN401A	Organise and monitor wharf/terminal operations	25
RIIHAN402A	Process movement of containers and cargo	30
RIIMG301A	Maintain site records	8
RIILAT401A	Provide leadership in the supervision of Indigenous employers	40
RIILAT601A	Manage group processes	40
RIIMCO201A	Conduct spreader operations	60
RIIMCO202A	Conduct mobile slew conveyor operations	40
RIIMCO301A	Conduct control centre operations	60
RIIMCO302A	Conduct surface miner operations	60
RIIMCO303A	Conduct auger miner operations	80
RIIMCP202A	Conduct rail dispatch operations	40
RIIMCP301A	Monitor plant operations for coal preparation	60
RIIMCU201A	Operate power tram	40
RIIMCU202A	Conduct tracked vehicle/plant operations	40
RIIMCU203A	Conduct wheeled vehicle operations (non-articulated)	40
RIIMCU204A	Conduct wheeled vehicle operations (articulated)	40
RIIMCU205A	Conduct rotational drilling	40
RIIMCU206A	Install, maintain and recover gas drainage systems	40
RIIMCU207A	Install, maintain and recover electrical services	20
RIIMCU208A	Conduct basic strata control operations	40
RIIMCU209A	Conduct roadway maintenance	20
RIIMCU210A	Conduct stonedusting operations	20
RIIMCU211A	Install and maintain explosion barriers	20
RIIMCU212A	Construct and maintain basic ventilation devices	20
RIIMCU213A	Conduct feeder breaker operations	40
RIIMCU214A	Conduct face ventilation operations	40

RIIMCU215A	Operate longwall ancillary equipment	40
RIIMCU216A	Maintain lamp cabin operations	40
RIIMCU301A	Conduct specialised strata control operations	40
RIIMCU302A	Construct and maintain ventilation devices	40
RIIMCU303A	Conduct continuous miner operations	100
RIIMCU304A	Conduct shuttle car operations	40
RIIMCU305A	Conduct outburst mining operations	40
RIIMCU306A	Conduct shearer operations	40
RIIMCU307A	Conduct longwall face equipment operations	100
RIIMCU308A	Install and recover longwall equipment	40
RIIMCU309A	Operate breaker line supports	40
RIIMCU310A	Conduct flexible conveyor train (FCT) operations	40
RIIMCU311A	Monitor control processes	40
RIIMCU401A	Conduct special roadway operations	60
RIIMCU402A	Apply spontaneous combustion management measures	40
RIIMCU403A	Apply and monitor the gas management plan	60
RIIMCU404A	Apply and monitor the gas drainage management plan	60
RIIMCU405A	Apply and monitor the outburst management plan	60
RIIMCU406A	Apply and monitor the inrush management plan	70
RIIMCU407A	Apply and monitor the strata management plan	60
RIIMCU408A	Apply the spontaneous combustion management plan	60
RIIMCU501A	Implement the spontaneous combustion management plan	60
RIIMCU502A	Implement the gas management plan	60
RIIMCU503A	Implement the gas drainage management plan	60
RIIMCU504A	Implement the outburst management plan	60
RIIMCU505A	Implement the inrush management plan	80
RIIMCU506A	Implement strata management plan	60
RIIMCU601A	Establish and maintain the spontaneous combustion management plan	80
RIIMCU602A	Establish and maintain the gas management system	80
RIIMCU603A	Establish and maintain the gas drainage management plan	80
RIIMCU604A	Establish and maintain the outburst management plan	80
RIIMCU605A	Establish and maintain the inrush management plan	100
RIIMCU606A	Establish and maintain the mining method and strata management systems	80
RIIMEX201A	Suppress dust in open-cut environment	20
RIIMEX202A	Install open-cut mine ground support	30
RIIMEX203B	Break oversize rock	30
RIIMEX204A	Conduct workboat/barge operations	50
RIIMEX301A	Conduct dredging operations	45
RIIMEX302B	Assess ground conditions	20
RIIMEX401A	Apply pit plan	160
RIIMEX402A	Supervise dredging operations	45
RIIMEX403A	Apply the principles of canal construction	60
RIIMEX404B	Apply and monitor systems for stable mining	80
RIIMEX405A	Apply and monitor systems and methods of surface coal mining	80
RIIMEX406A	Apply and monitor mine transport system and production equipment	80
RIIMEX501A	Implement pit plan	120
RIIMEX502A	Implement systems and methods of mining	80
RIIMEX503A	Manage dredging operations	50
RIIMEX601A	Plan pit development	90
RIIMEX602A	Establish and maintain surface mining ground control and slope stability systems	120

RIIMEX603A	Establish and maintain underground mining ground control and stable mining systems	80
RIIMEX604A	Establish and maintain surface product haulage and transport systems	80
RIIMEX605A	Establish, implement and maintain operational management plans	60
RIIMPG201A	Connect and disconnect refer units	20
RIIMPG301A	Control and monitor automated plant/machinery	20
RIIMPO201A	Operate roller/compactor underground	20
RIIMPO202A	Undertake towing underground	20
RIIMPO203A	Support bucket wheel system operations	60
RIIMPO204A	Conduct conveyor shifting dozer operations	40
RIIMPO205B	Operate roller/compactor	20
RIIMPO206B	Conduct bulk water truck operations	40
RIIMPO207A	Conduct underground articulated wheeled vehicle operations	40
RIIMPO208A	Operate support equipment	50
RIIMPO209A	Conduct underground load, haul, dump operations	30
RIIMPO210A	Conduct underground truck operations	20
RIIMPO301C	Conduct hydraulic excavator operations	60
RIIMPO302B	Conduct hydraulic shovel operations	60
RIIMPO303A	Conduct rope shovel operations	70
RIIMPO304B	Conduct wheel loader operations	65
RIIMPO305B	Conduct stockpile dozer operations	40
RIIMPO306A	Operate plant/machinery on live stockpiles	40
RIIMPO307B	Conduct wheel grader operations in underground mines	40
RIIMPO308B	Conduct tracked dozer operations	60
RIIMPO309A	Conduct wheeled dozer operations	40
RIIMPO310B	Conduct grader operations	60
RIIMPO311A	Conduct haul truck operations	60
RIIMPO312A	Conduct scraper operations	60
RIIMPO313B	Conduct face loading operations	50
RIIMPO314A	Operate small open cut mine equipment	40
RIIMPO315A	Conduct tractor operations	52
RIIMPO316A	Conduct self propelled compactor operations	32
RIIMPO317A	Conduct roller operations	68
RIIMPO318B	Conduct civil construction skid steer loader operations	68
RIIMPO319A	Conduct backhoe/loader operations	50
RIIMPO320B	Conduct civil construction excavator operations	160
RIIMPO321B	Conduct civil construction wheel loader operations	128
RIIMPO322A	Conduct civil construction tracked front end loader operations	68
RIIMPO323A	Conduct civil construction dozer operations	192
RIIMPO324A	Conduct civil construction grader operations	192
RIIMPO325A	Conduct civil construction scraper operations	128
RIIMPO326A	Conduct civil construction water cart operations	32
RIIMPO327A	Conduct pipe layer operations	68
RIIMPO328A	Conduct continuous bucket trencher operations	32
RIIMPO329A	Conduct dragline operations	100
RIIMPO330A	Conduct bucket-wheel operations	80
RIIMPO331A	Conduct operations with stockpile dozer	40
RIIMPO332A	Conduct operations with skid steer loader	68
RIIMPO333	Conduct underground load, haul and dump truck operations	30
RIIMPO401A	Supervise mobile plant operations	35
RIIMPO402A	Apply the principles of earthworks construction	60
RIIMPO403A	Monitor interaction of heavy and light vehicles and mining equipment	60

RIIMPO501A	Implement, monitor, rectify and report on mobile plant and equipment systems	80
RIIMPO502A	Manage the interaction of heavy and light vehicles and mining equipment	100
RIIMPO503A	Manage laser levelling of operating plant	80
RIIMSM301A	Establish a mining claim	60
RIIMSM302A	Plan small mine operations	80
RIIMSM303A	Install underground shaft	80
RIIMSM304A	Inspect small mines operations	80
RIIMSM305A	Conduct materials extraction operations underground	40
RIIMSM306A	Design and maintain pillar system and ground control	60
RIIMSM307A	Install and maintain ventilation systems and equipment	60
RIINHB201B	Load, secure and unload drilling equipment and materials	40
RIINHB202A	Set up/pack up drill site	40
RIINHB203A	Support drilling process	96
RIINHB205A	Assist continuous flight auger drilling	30
RIINHB206A	Assist large diameter auger drilling	20
RIINHB208A	Assist diamond core drilling	20
RIINHB209A	Assist guided boring	20
RIINHB210B	Assist surface directional drilling	20
RIINHB211A	Assist mud rotary drilling	20
RIINHB213A	Assist cable tool drilling	20
RIINHB216A	Assist underground in-seam directional drilling	30
RIINHB217A	Assist horizontal direction drilling	30
RIINHB218A	Assist grouting or cementing operations	30
RIINHB219A	Assist air drilling	30
RIINHB301A	Set up and prepare for drilling operations	60
RIINHB302A	Conduct reaming	60
RIINHB303A	Install product pipe	40
RIINHB304B	Conduct air drilling	60
RIINHB305A	Conduct continuous flight auger drilling	60
RIINHB306A	Conduct large diameter auger drilling	60
RIINHB307A	Conduct conventional core drilling	60
RIINHB308A	Conduct wireline core drilling	60
RIINHB309A	Conduct guided boring	60
RIINHB310A	Conduct surface directional drilling	60
RIINHB311A	Conduct mud rotary drilling	60
RIINHB312A	Conduct raise boring	60
RIINHB313A	Conduct cable tool drilling	60
RIINHB315A	Conduct top-hole hammer drilling	60
RIINHB316A	Conduct underground in-seam directional drilling	60
RIINHB317A	Install underground in-seam directional drilling standpipes	40
RIINHB318A	Install and operate water and gas control equipment	40
RIINHB319A	Install de-watering conduit and gas drainage equipment	40
RIINHB320A	Construct monitoring bores	80
RIINHB321A	Construct single aquifer production bores	40
RIINHB322A	Construct multiple aquifer production bores	40
RIINHB323A	Conduct horizontal directional drilling	60
RIINHB324B	Conduct grouting or cementing operations	40
RIINHB401A	Plan and supervise the mobilisation of equipment, crew and materials	30
RIINHB402A	Supervise mineral exploration drilling operations	45
RIINHB403A	Supervise geotechnical drilling operations	45
RIINHB404A	Supervise seismic drilling operations	45
RIINHB405A	Supervise water well drilling operations	45

RIINHB406A	Supervise foundation drilling operations	45
RIINHB407A	Supervise horizontal directional drilling operations	45
RIINHB408A	Supervise environmental drilling operations	45
RIINHB409A	Supervise mineral production and development drilling operations	45
RIINHB410A	Supervise surface directional drilling operations	45
RIINHB411A	Construct artesian (flowing) aquifer production bores	40
RIINHB412A	Supervise the construction of geothermal wells	40
RIINHB413A	Supervise underground in-seam directional drilling operations	60
RIINHB501A	Plan drilling	40
RIIOGD201A	Assist in maintaining rig safety and emergency procedures	30
RIIOGD202A	Carry out equipment and basic rig maintenance	40
RIIOGD203A	Prepare and operate drilling fluid systems	25
RIIOGD204A	Perform rig floor operations	40
RIIOGD205A	Support blow out prevention operations	20
RIIOGD206A	Assist with coal seam gas control	20
RIIOGD209A	Operate and maintain ancillary equipment	40
RIIOGD301A	Conduct and maintain derrick operations	50
RIIOGD302A	Trip casing	20
RIIOGD303A	Trip pipe	20
RIIOGD304A	Apply effective coal seam gas control practices	40
RIIOGD305A	Apply blow out prevention operational procedures	40
RIIOGD401A	Rig up, conduct pre-spud operations and rig down	30
RIIOGD402A	Participate in nipping-up and pressure test	20
RIIOGD403A	Conduct drilling operations	30
RIIOGD404A	Coordinate air drilling operations	40
RIIOGD405A	Carry out well control and blowout prevention	30
RIIOGD406A	Shut down rig	20
RIIOGD501A	Manage rig operations	40
RIIOGD502A	Plan and evaluate rig operations	40
RIIOGD503A	Oversee drilling operations	40
RIIOGD504A	Manage drilling operations	40
RIIOGD505A	Manage drilling induction and orientation	20
RIIOGD506A	Manage rig move and camp move	20
RIIOGD507A	Manage and monitor rig-up and rig-up to spud operations	40
RIIOGD508A	Manage well completion and abandonment	40
RIIOGD601A	Manage multiple drilling operations	40
RIIOGF201A	Carry out deck operations	20
RIIOGF202A	Assist in the transfer of passengers and freight during helicopter operations	10
RIIOGF203A	Contribute to the control of offshore emergencies	20
RIIOGF301A	Monitor, operate and maintain mud pits and equipment	30
RIIOGF302A	Operate drilling fluids and mud pits	30
RIIOGN201A	Carry out rig lease operations	30
RIIOGN302A	Operate mud pumps	20
RIIOGN303A	Operate mud systems	20
RIIOHS201A	Work safely and follow OHS policies and procedures	30
RIIOHS202A	Enter and work in confined spaces	24
RIIOHS203A	Maintain amenities	20
RIIOHS204A	Work safely at heights	16
RIIOHS205A	Control traffic with stop-slow bat	4
RIIOHS301A	Conduct safety and health investigations	40
RIIOHS302A	Implement traffic management plan	16
RIIOHS401A	Supervise work in confined spaces	30



RIIOHS402A	Examine and maintain mine safety	50
RIIOHS403A	Apply the mine occupational health and safety management plan	80
RIIOHS404A	Implement and monitor health and hygiene management systems	50
RIIOHS405A	Maintain standard procedures and safe working practices	20
RIIOHS601A	Establish and maintain the OHS management system	70
RIIOHS602A	Incorporate health and hygiene factors into mine management	60
RIIPBE201A	Conduct aeration process	40
RIIPBE202A	Conduct digestion process	40
RIIPBE203A	Conduct precipitation operations	40
RIIPBE204A	Conduct reduction process	40
RIIPBE205B	Conduct roasting operations	40
RIIPBE301A	Conduct calcinations activities	25
RIIPBE302A	Conduct bacterial oxidation	40
RIIPBE303B	Conduct filtering process	25
RIIPBE304B	Conduct heavy media separation	40
RIIPBE305A	Conduct high tension separation	30
RIIPBE306A	Conduct leaching process	40
RIIPBE307A	Conduct pressure oxidation	40
RIIPBE308B	Conduct thickening and clarifying process	20
RIIPBE309B	Conduct wet gravity separation	30
RIIPBE310B	Conduct flotation process	50
RIIPBE311B	Conduct magnetic separation	30
RIIPBP202A	Conduct air cleaning activities	40
RIIPBP301A	Process lime products	30
RIIPBP302A	Control operations in acid plant	40
RIIPEO201B	Conduct conveyor operations	40
RIIPEO202A	Provide deck support for conveyor-car high wall mining operations	40
RIIPEO203B	Conduct stacker operations	30
RIIPEO204A	Conduct shore side mooring operations	30
RIIPEO205A	Conduct ship loading operations	30
RIIPEO206A	Lay and recover cables and hoses	20
RIIPEO207A	Coordinate conveyor system shift	20
RIIPEO208A	Extend, retract and maintain conveyor componentry	20
RIIPEO301A	Conduct conveyor-car high wall mining operations	40
<b>RIIPEO302</b>	<b>Operate and monitor ore car dumpers</b>	<b>40</b>
RIIFIA401A	Manage financial records	30
RIIPGP201A	Conduct pump operations	20
RIIPGP202A	Handle reagents	30
RIIPGP203A	Operate compressors	20
RIIPGP204A	Carry out bore-field operations	20
RIIPGP205A	Handle, store and use cyanide	30
RIIPGP301A	Conduct drying activities	30
RIIPGP302A	Monitor and operate auxiliary plant and equipment	40
RIIPHA201A	Operate raw material feed systems	20
RIIPHA301A	Conduct milling/grinding	40
RIIPHA302A	Operate and monitor filter processes	30
RIIPHA303A	Operate agglomeration circuit	40
RIIPRE201A	Conduct solvent extraction	40
RIIPRE202A	Prepare and carry out electrolytic cleaning process	25
RIIPRE203A	Prepare for sintering activities	15
RIIPRE204A	Sinter materials	15
RIIPRE301A	Conduct electrowinning/electrorefining operations	40



RIIPRE302A	Conduct elution processes	40
RIIPRE303A	Conduct gold room operations	40
RIIPRE304A	Monitor casting quality	50
RIIPRM501A	Implement, monitor, rectify and report on contracts	80
RIIPRO201A	Conduct crushing operations	40
RIIPRO202A	Conduct screening and conveying operations	25
RIIPRO203A	Operate programmable logic control systems	25
RIIPRO204A	Bulk package and store product	20
RIIPRO205A	Conduct blending plant operations	25
RIIPRO301C	Conduct crushing and screening plant operations	60
RIIPRO302A	Perform process control room operations	60
RIIPRO303A	Conduct sand wash plant operations	35
RIIPRO401A	Supervise processing operations	60
RIIPRO402A	Supervise recycled materials operations	20
RIIPRO501A	Implement site processing plant operations	30
RIIPRO502A	Develop, implement and maintain process control systems	60
RIIPRO601A	Design processing plant	60
RIIPSM201A	Tap furnaces	50
RIIPSM202A	Prepare for pelletising activities	15
RIIPSM203A	Produce pellets	15
RIIPSM301A	Cast a blast furnace	35
RIIPSM302A	Cast ingots	20
RIIPSM303A	Operate a blast furnace	50
RIIPSM304A	Operate furnaces	40
RIIPSM305A	Operate converters	50
RIIPSM306A	Supply molten metal and additives to furnaces	50
RIIPSM307A	Control molten metal in holding furnace/vessel	50
RIIPSM308A	Monitor and maintain furnace gas efficiency	35
RIIPSM309A	Monitor and maintain flue gas efficiency	35
RIIQUA201A	Maintain and monitor site quality standards	40
RIIQUA401A	Apply a quality management system on site	30
RIIQUA501A	Implement, monitor and develop quality management plans	40
RIIQUA601A	Establish and maintain a quality system	65
RIIRAI401A	Apply and monitor mine services and infrastructure systems	60
RIIRAI402A	Apply and monitor site plant and resource management plan	80
RIIRAI501B	Implement mine transport systems and production equipment	60
RIIRAI502A	Implement site plant and resource management plan	80
RIIRAI503B	Implement site services and infrastructure systems	80
RIIRAI504A	Select and install surface plant and equipment	80
RIIRAI505A	Implement the surface mine mechanical plant management plan	100
RIIRAI506A	Implement, monitor, rectify and report on inventory control system	80
RIIRAI507A	Implement the underground coal mine mechanical plant management plan	80
RIIRAI508A	Implement mine services systems	80
RIIRAI509A	Implement mine fixed plant and infrastructure systems	80
RIIRAI510A	Implement, monitor, rectify and report on interfaces between electrical and mechanical componentry	80
RIIRAI601A	Establish and maintain the site infrastructure and fixed plant systems	120
RIIRAI602A	Establish and maintain mine mechanical plant, services and infrastructure systems	120
RIIRAI603A	Establish and maintain mine transport systems and production equipment	80

RIIRAI604A	Establish and maintain mine services and infrastructure systems	80
RIIRAI605A	Establish and maintain an underground mine mechanical plant management system	100
RIIRAI606A	Establish and maintain mine closure management systems	60
RIIRAI607A	Establish quarry operations	80
RIIRAI608A	Establish quarry development	60
RIIRAI609A	Establish and maintain electrical installations, reticulation and protection system	120
RIIRAI610A	Establish and maintain mechanical standard and engineering practices for transport and production equipment	120
RIIRAI611A	Establish and maintain a surface mine mechanical plant management system	100
RIIRAI612A	Establish and maintain underground product haulage and transport systems	80
RIIRIS201B	Conduct local risk control	20
RIIRIS301B	Apply risk management processes	30
RIIRIS401A	Apply site risk management system	40
RIIRIS402A	Carry out the risk management processes	80
RIIRIS501A	Implement and maintain management system to control risk	80
RIIRIS601A	Establish and maintain the risk management system	70
RIISAM201A	Handle resources and infrastructure materials and safely dispose of non toxic materials	16
RIISAM202A	Isolate and access plant	20
RIISAM203B	Use hand and power tools	60
RIISAM204B	Operate small plant and equipment	30
RIISAM205A	Cut, weld and bend materials	50
RIISAM207A	Apply operational maintenance skills	50
RIISAM208A	Perform plant operational maintenance	50
RIISAM209A	Carry out operational maintenance	50
RIISAM210A	Remove and fit wheel assemblies	20
RIISAM211B	Remove, repair and refit tyres and tubes	36
RIISAM212A	Service mine plant and equipment	40
RIISAM213A	Position and set up mobile lighting	10
RIISAM214A	Provide support to electrical tradesperson	40
RIISAM215A	Carry out drilling industry operational maintenance	40
RIISAM301A	Test operational functions of vehicles and equipment	30
RIISAM302A	Service and handover plant and machines	40
RIISAM303A	Shut down dredge for operator maintenance	40
RIISAM304A	Install, commission and maintain major conveyor equipment and systems	80
RIISAM305A	Repair and splice conveyor belting	40
RIISAM306A	Service and maintain conveyors, feeders and hoppers	30
RIISAM307A	Service and maintain crushers	30
RIISAM308A	Service and maintain screens	30
RIISAM309A	Service and maintain pumps	30
RIISAM310A	Install and commission plant, machinery and services	60
RIISAM311A	Maintain winder equipment	40
RIISAM312A	Inspect and maintain shafts and structures	40
RIISAM313A	Monitor, inspect and service ropes and attachments	40
RIISAM314A	Manage oil and gas drilling equipment maintenance	30
RIISAM401A	Apply site plant, equipment and infrastructure maintenance management plan	80
RIISAM402A	Supervise operation of electrical equipment and installations	40
RIISAM403A	Commission/recommission plant	60

RIISAM501A	Implement and maintain the site plant, equipment and infrastructure maintenance plan	80
RIISAM502B	Manage general drilling equipment maintenance	40
RIISAM601A	Establish and maintain plant, equipment and infrastructure maintenance system	90
RIISAM602A	Establish and maintain maintenance management system for mechanical plant and equipment	120
RIISDM501A	Conduct mine surveying operations	50
RIISRM301B	Blend stockpile materials	20
RIISRM302B	Conduct stockpile reclaiming operations	40
RIISRM303B	Move and position materials to form stockpile	20
RIISRM304B	Maintain stockpiles	20
RIISRM401A	Apply and monitor the site stockpile management plan	15
RIISRM501A	Implement the stockpile management plan	60
RIISRM502A	Design stockpile formations and reclaiming systems	40
RIISRM601A	Establish and maintain the stockpile management system	90
RIISTD201A	Read and interpret maps	20
RIISTD202A	Collect routine site samples	80
RIISTD301A	Take environmental samples and measurements	80
RIISTD302A	Process data and maintain accurate records	80
RIIUMM201A	Install ground support	60
RIIUMM202A	Install and maintain vent	30
RIIUMM203A	Prepare and perform manual scaling operations	20
RIIUMM301A	Conduct wet filling activities	20
RIIUMM302A	Install sets	60
RIIUMM303A	Conduct hand held mining	70
RIIUMM304A	Construct and maintain underground roads	40
RIIUMM305A	Install and remove a secondary fan	20
RIIUMM306A	Conduct mechanical scaling	30
RIIUMM307A	Maintain underground stockpiles	20
RIIUND201A	Install, maintain and recover reticulation systems.	20
RIIUND202A	Operate from elevated work platform underground	40
RIIUND203B	Apply shot-crete	60
RIIUND204A	Refuel vehicles/machines underground	20
RIIUND205A	Respond to a workface incident	40
RIIUND206A	Install hand held underground ground support	20
RIIUND207A	Conduct underground lifting operations	40
RIIUND208A	Conduct skip operations	20
RIIUND209A	Operate automated winder	20
RIIUND301A	Operate manual winder	40
RIIUND302A	Conduct cage operations	40
RIIUND303A	Operate winder for shaft sinking	40
RIIUND304A	Recover equipment	60
RIIUND305A	Recover underground equipment	35
RIIUND306A	Conduct line of sight remote operations	30
RIIUND307A	Conduct tele-remote operations	30
RIIUND308A	Conduct control room operations	40
RIIUND309A	Conduct mechanical underground ground support drilling and installation	40
RIIUND401B	Apply and monitor the ventilation management plan	80
RIIUND501A	Implement the ventilation management plan	80
RIIUND601A	Establish and maintain the ventilation management system	80
RIIUND602A	Establish and maintain mine services systems	120
RIIUND603A	Manage, operate and maintain the mine ventilation system	60
RIIVEH201B	Operate light vehicle	40

RIIVEH202A	Operate a medium vehicle	40
RIIVEH203B	Operate light vehicle underground	40
RIIVEH301A	Conduct rail haulage operations	40
RIIVEH302A	Operate multi-combination vehicle	40
RIIVEH303A	Drive heavy combination vehicle	40
RIIVEH304B	Conduct tip truck operations	52
RIIVEH305A	Operate and maintain a four wheel drive vehicle	40
RIIVEH306A	Operate mine service vehicle	40
RIIVEH307A	Operate heavy rigid vehicle	40
RIIWBP201A	Treat and dispose of rejects and tailings	60
RIIWBP202A	Distribute tailings	20
RIIWBP203B	Monitor tailings dam environment	20
RIIWBP401A	Apply and monitor site waste and by-products management plan	80
RIIWBP501A	Implement site waste and by-product management plan	80
RIIWBP502A	Plan and monitor recycled material operations	40
RIIWBP601A	Establish and maintain waste and by-product management system	90
RIIWMG201A	Conduct dewatering activities in surface operations	40
RIIWMG202A	Conduct dewatering operations in underground mining operations	40
RIIWMG203A	Drain and dewater civil construction site	12
RIIWMG301A	Control construction site water table	20
RIIWMG302A	Reclaim and treat water	20
RIIWMG401A	Apply and monitor the site water management plan	80
RIIWMG402A	Monitor and coordinate waste and process water treatment	35
RIIWMG501A	Implement the site water management plan	80
RIIWMG601A	Establish and maintain water management system	90

## Mapping Qualifications

The following table provides an overview of the qualifications from the **Version 3** which replace qualifications from the existing version of the Training Package.

Version 2.0			Version 3.0		
National ID	Qualification Title	Hours	National ID	Qualification Title	Hours
RII20709	Certificate II in Civil Construction	388	RII20712	Certificate II in Civil Construction	388
RII30111	Certificate III in Surface Extraction Operations	490	RII30112	Certificate III in Surface Extraction Operations	490
RII30209	Certificate III in Underground Coal Operations	646	RII30212	Certificate III in Underground Coal Operations	646
RII30909	Certificate III in Civil Construction	718	RII30912	Certificate III in Civil Construction	718
RII31009	Certificate III in Bituminous Surfacing	638			
RII31109	Certificate III in Bridge Construction and Maintenance	632			
RII31309	Certificate III in Pipe Laying	520			
RII31409	Certificate III in Road Construction and Maintenance	628			
RII31509	Certificate III in Road Marking	416			
RII31709	Certificate II in Tunnel Construction	604			
RII32109	Certificate III in Timber Bridge Construction and Maintenance	721			
RII40209	Certificate IV in Surface Coal Mining (Open Cut Examiner)	850	RII40212	Certificate IV in Surface Coal Mining (Open Cut Examiner)	850
RII40411	Certificate IV in Underground Coal Operations	850	RII40412	Certificate IV in Underground Coal Operations	850
RII40712	Certificate IV in Civil Construction Supervision	540	RII40712	Certificate IV in Civil Construction Supervision	540
RII50912	Diploma of Underground Coal Mining Management	760	RII50912	Diploma of Underground Coal Mining Management	760
RII60312	Advanced Diploma of Underground Coal Mining Management	890	RII60312	Advanced Diploma of Underground Coal Mining Management	890

## Mapping Units of Competency

The following table provides an overview of the units of competency from Version 2.0 of the Training Package which are replaced by the units of competency from the Version 3.0

Version 2.0			Version 3.0			
National ID	Unit of Competency Title	Hours	National ID	Unit of Competency Title	Hours	*Equiv/Not Equivalent
RIIBHD304A	Set up and prepare for open cut drilling operations	30	RIIBHD304B	Set up and prepare for open cut drilling operations	30	E
	No previous equivalent		RIIBHD305	Conduct down-hole hammer drilling	40	-
RIIBLA203A	Conduct mobile mixing of explosives	40	RIIBLA203B	Conduct mobile mixing of explosives	40	E
RIICBS401A	Apply the principles for the asphalt paving and compaction	40	RIICBS401B	Apply the principles for the asphalt paving and compaction	40	E
RIICBS402A	Apply the principles for the application of bituminous sprayed treatment	45	RIICBS402B	Apply the principles for the application of bituminous sprayed treatment	45	E
RIICBS403A	Apply the principles for the application of polymer modified binder	25	RIICBS403B	Apply the principles for the application of polymer modified binder	25	E
RIICBS404A	Apply the principles for the selection and use of bituminous emulsion	20	RIICBS404B	Apply the principles for the selection and use of bituminous emulsion	20	E
	No previous equivalent		RIICRC311	Conduct concrete road paver operations	60	-
	No previous equivalent		RIICRC312	Setup and maintain concrete paver stringlines	40	-
	No previous equivalent		RIICRC313	Conduct concrete road curing and texturing operations	24	-
	No previous equivalent		RIICRC314	Handle concrete materials	24	-
	No previous equivalent		RIICRC315	Use concreting materials and equipment	60	-
	No previous equivalent		RIICRC316	Place and compact concrete	170	-
	No previous equivalent		RIICRC317	Finish concrete pavements	40	-
	No previous equivalent		RIICRC318	Cure concrete	16	-
	No previous equivalent		RIICRC319	Saw and cut concrete pavements to initiate planned cracks	16	-
	No previous equivalent		RIICRC320	Seal concrete pavements	12	-
	No previous equivalent		RIICRC321	Use automated paving guidance systems	80	-

Version 2.0			Version 3.0			
National ID	Unit of Competency Title	Hours	National ID	Unit of Competency Title	Hours	*Equiv/Not Equivalent
	No previous equivalent		RIICRC322	Reciev, check and record concrete deliveries	8	-
	No previous equivalent		RIICRC323	Insert tie bars in fresh concrete	8	-
RIICRC406A	Apply the principles of pavement maintenance	50	RIICRC406B	Apply the principles of pavement maintenance	50	E
RIICWD524A	Prepare design of sprayed seal surfacing	60	RIICWD524B	Prepare design of sprayed seal surfacing	60	E
RIICWD525A	Select pavement surfacing	36	RIICWD525B	Select pavement surfacing	36	E
RIICWM401A	Supervise civil works	80	RIICWM401B	Supervise civil works	80	E
	No previous equivalent		RIIDES301	Inspect, test and maintain diesel engine systems and their ancillary systems	80	-
	No previous equivalent		RIIDES302	Inspect, test and maintain joints on diesel engine systems	40	-
	No previous equivalent		RIIDES303	Inspect, test and maintain cooling systems on diesel engine systems	20	-
	No previous equivalent		RIIDES304	Inspect, test and maintain inlet systems on diesel engine systems	20	-
	No previous equivalent		RIIDES305	Inspect, test and maintain exhaust systems on diesel engine systems	20	-
	No previous equivalent		RIIDES306	Inspect, test and maintain safety shutdown systems on diesel engine systems	40	-
	No previous equivalent		RIIDES307	Test, determine the cause and rectify excessive emission levels on diesel engine systems	20	-
RIIEGS305A	Navigate in remote and trackless areas	20	RIIEGS305B	Navigate in remote and trackless areas	20	E
RIIMPO205A	Operate roller/compactor	20	RIIMPO205B	Operate roller/compactor	20	E
RIIMPO206A	Conduct bulk water truck operations	40	RIIMPO206B	Conduct bulk water truck operations	40	E
RIIMPO301B	Conduct hydraulic excavator operations	60	RIIMPO301C	Conduct hydraulic excavator operations	60	E
RIIMPO307A	Conduct wheeled grader operations in underground mines	40	RIIMPO307B	Conduct wheeled grader operations in underground mines	40	E
RIIMPO310A	Conduct grader operations	60	RIIMPO310B	Conduct grader operations	60	E
RIIMPO320A	Conduct civil construction excavator operations	160	RIIMPO320B	Conduct civil construction excavator operations	160	E
RIIMPO209A	Conduct underground load, haul, dump truck operations	30	RIIMPO333	Conduct underground load, haul, dump truck operations	30	E
RIINHB210A	Assist surface directional drilling	20	RIINHB210B	Assist surface directional drilling	20	E

Version 2.0			Version 3.0			
National ID	Unit of Competency Title	Hours	National ID	Unit of Competency Title	Hours	*Equiv/Not Equivalent
RIINHB324A	Conduct grouting or cementing operations	40	RIINHB324B	Conduct grouting or cementing operations	40	E
RIIOGN301A	Prepare and operate drilling fluid systems	30	RIIOGD203A	Prepare and operate drilling fluid systems	25	E
	No previous equivalent		RIIPEO302	Operate and monitor ore car dumpers	40	-
RIIPRO301B	Conduct crushing and screening operations	60	RIIPRO301C	Conduct crushing and screening operations	60	E
RIIRIS301A	Apply risk management processes	30	RIIRIS301B	Apply risk management processes	30	E
RIISAM203A	Use hand and power tools	60	RIISAM203B	Use hand and power tools	60	E
RIISAM204A	Operate small plant and equipment	30	RIISAM204B	Operate small plant and equipment	30	E
RIIUND203A	Apply shot-crete	60	RIIUND203B	Apply shot-crete	60	E
RIIVEH203A	Operate a light vehicle underground	20	RIIVEH203B	Operate a light vehicle underground	20	E
RIIVEH304A	Conduct tip truck operations	52	RIIVEH304B	Conduct tip truck operations	52	E
RIIWBP203A	Monitor tailings dam environment	20	RIIWBP203B	Monitor tailings dam environment	20	E



## Traineeships

The following table provides a summary of the qualifications in the RII09 Resources and Infrastructure Training Package **Version 3** and the accredited traineeship courses they will replace.

National ID	Version 2			National ID	Version 3	
	Qualification Title	Traineeship	Hours		Qualification Title	Hours
RII10109	Certificate I in Resources and Infrastructure Operations	Civil Construction for Entry Level Indigenous Workers (Level 1)	180		No change	
RII20209	Certificate II in Surface Extraction Operations	Metalliferous Mining Operations (Open Cut) (Level 2)	300		No change	
RII20209	Certificate II in Surface Extraction Operations	Extractive Industries (Operator) (Level 2)	300		No change	
RII20409	Certificate II in Underground Metalliferous Mining	Metalliferous Mining Operations (Underground) (Level 2)	260		No change	
RII20509	Certificate II in Resource Processing	Metalliferous Mining Operations (Processing) (Level 2)	380		No change	
RII20609	Certificate II in Mining Field/Exploration Operations	Field/Exploration Operations (Level 2)	720		No change	
RII20709	Certificate II in Civil Construction	Civil Construction (Level 2)	388	RII20712	Certificate II in Civil Construction	388
RII20809	Certificate II in Bituminous Surfacing	Bituminous Surfacing (Level 2)	356		No change	
RII20909	Certificate II in Drilling Operations	Drilling (Mineral Exploration) (Level 2)	406		No change	
RII20909	Certificate II in Drilling Operations	Drillers Assistant (Level 2)	406		No change	
RII30111	Certificate III in Surface Extraction Operations	Metalliferous Mining Operations (Level 3)	490	RII30112	Certificate III in Surface Extraction Operations	490
RII30109	Certificate III in Surface Extraction Operations	Extractive Industries (Operator) (Level 3)	440		No change	
RII30311	Certificate III in Underground Metalliferous Mining	Metalliferous Mining Operations (Underground) (Level 3)	485		No change	

Version 2				Version 3		
National ID	Qualification Title	Traineeship	Hours	National ID	Qualification Title	Hours
RII30411	Certificate III in Resource Processing	Metalliferous Mining Operations (Processing) (Level 3)	460		No change	
RII30809	Certificate III in Civil Construction Plant Operations	Plant Operations (Level 3)	644		No change	
RII30909	Certificate III in Civil Construction	Civil Construction (Level 3)	718	RII30912	Certificate III in Civil Construction	718
RII31009	Certificate III in Bituminous Surfacing	Bituminous Surfacing (Level 3)	638			
RII31109	Certificate III in Bridge Construction and Maintenance	Bridge Construction and Maintenance (Level 3)	632			
RII31309	Certificate III in Pipe Laying	Pipelaying (Level 3)	520			
RII31409	Certificate III in Road Construction and Maintenance	Road Construction and Maintenance (Level 3)	628			
RII31509	Certificate III in Road Marking	Road Marking (Level 3)	416			
RII31709	Certificate III in Tunnel Construction	Tunnel Construction (Level 3)	604			
RII31209	Certificate III in Civil Foundations	Foundation Work (Level 3)	616		No change	
RII31609	Certificate III in Trenchless Technology	Trenchless Technology (Level 3)	750		No change	
RII31809	Certificate III in Drilling Operations	Driller (Level 3)	470		No change	
RII40109	Certificate IV in Surface Extraction Operations	Metalliferous Mining Operations (Open Cut) (Level 4)	550		No change	
RII40311	Certificate IV in Metalliferous Mining Operations (Underground)	Metalliferous Mining Operations (Underground) (Level 4)	720		No change	
RII40509	Certificate IV in Resource Processing	Metalliferous Mining Operations (Processing) (Level 4)	650		No change	
RII40709	Certificate IV in Civil Construction Supervision	Civil Construction Supervisor (Level 4)	540	RII40712	Certificate IV in Civil Construction Supervision	540
RII40809	Certificate IV in Civil Construction Design	Civil Construction Designer (Level 4)	594		No change	
RII40909	Certificate IV in Drilling Operations	Drilling (Mineral Exploration) (Level 4)	445		No change	
RII50109	Diploma of Surface Operations	Open Cut and Underground	920		No change	

Version 2				Version 3		
National ID	Qualification Title	Traineeship	Hours	National ID	Qualification Title	Hours
	Management	Mine Engineering (Level 5)				
RII50209	Diploma of Underground Metalliferous Mining Management	Open Cut and Underground Mine Engineering (Level 5)	850		No change	
RII50109	Diploma of Surface Operations Management	Extractive Industries Manager (Level 5)	920		No change	
RII50309	Diploma of Minerals Processing	Mine Process Supervisor (Level 5)	920		No change	
RII50409	Diploma of Civil Construction Management	Civil Construction Manager (Level 5)	710		No change	
RII50509	Diploma of Civil Construction Design	Civil Construction Designer (Level 5)	1004		No change	
RII60209	Adv Diploma of Extractive Industries Management	Extractive Industries Senior Manager (Level 6)	1095		No change	
RII60509	Adv Diploma of Civil Construction Design	Civil Construction Senior Designer (Level 6)	795		No change	
RII60609	Adv Diploma of Civil Construction	Civil Construction Senior Manager (Level 6)	875		No change	