



Australian Government

RIINHB222 Assist sonic drilling operations

Release: 1

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Modification History

Release	Comments
Release 1	This version first released with RII Resources and Infrastructure Industry Training Package Version 5.0.

Application

This unit describes the skills and knowledge required to assist in the sonic drilling process and collect sonic samples.

It applies to those working in drillers assistant roles. They generally work under supervision to undertake a prescribed range of functions involving known routines and procedures and take some responsibility for the quality of work outcomes.

Licensing, legislative and certification requirements that apply to this unit can vary between states, territories, and industry sectors. Users must check requirements with relevant body before applying the unit.

Unit Sector

Drilling

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Plan and prepare to assist sonic drilling	1.1 Obtain, interpret and confirm work requirements 1.2 Access, interpret and apply documentation required to conduct sonic drilling operations and confirm work activity is compliant 1.3 Identify and minimise environmental issues and potential hazards, and assess and address risks within scope of own role and according to workplace procedures 1.4 Select and wear personal protective equipment required for work activity 1.5 Communicate with other personnel at site according to work requirements and confirm briefings and handover details are communicated and received

ELEMENT	PERFORMANCE CRITERIA
	1.6 Load, unload and move tools and equipment 1.7 Confirm adequate consumables are available for the drilling program 1.8 Confirm drill site is free of trip hazards 1.9 Connect water according to site requirements
2. Assist in sonic drilling process	2.1 Inspect core barrels, rods, casing, bits, threads and associated equipment for damage and fatigue from sonic vibration 2.2 Prepare drill string and casing string in readiness for tripping and drilling 2.3 Inspect rod handling equipment for damage and/or wear 2.4 Use mechanical lifting device to transfer drill rods and casing to/from rod handling equipment and/or mast 2.5 Assist driller in tripping rods and casing in/out of hole
3. Collect sonic samples	3.1 Prepare sufficient poly bags, trays, and/or PVC splits for sample presentation 3.2 Assist driller to setup for sample retrieval 3.3 Designate appropriate area for sample placement and presentation 3.3 Confirm core barrel is not too hot to touch 3.4 Guide sample into polybag/tray/PVC split 3.5 Clearly label sample depth 3.6 Lay sample out in designated area for presentation

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance but not explicit in the performance criteria.

SKILL	DESCRIPTION
Reading	Identifies and interprets information from workplace procedures, documentation, legislation and regulations
Writing	Produces and completes workplace reports using appropriate vocabulary, grammatical structures and conventions
Self-management	Monitors and minimises own exposure to worksite hazards during activities

Unit Mapping Information

New unit

Links

Companion Volume implementation guides is found on VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=88a61002-9a21-4386-aaf8-69c76e675272>

Assessment Requirements for RIINHB222 Assist sonic drilling operations

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Performance Evidence

The candidate must demonstrate the ability to complete the tasks outlined in the elements, performance criteria and foundation skills of this unit, including evidence of the ability to:

- assist sonic drilling on at least two occasions, including:
 - setting up and packing up of sonic drill site
 - retrieving, marking-up and laying out sonic sample
 - assisting in tripping rods and casing in and out of hole
 - inspecting core barrels, rods, casing, bits and other downhole equipment

During the above, the candidate must:

- locate and apply legislation, documentation, policies and procedures required to assist sonic drilling
- implement the requirements, procedures and techniques for assisting sonic drilling, including:
 - keeping work area clean
 - selecting and wearing required protective clothing and equipment
 - conducting pre-operational checks
 - reporting immediately any malfunction or equipment failure
- work with others to assist sonic drilling that meets required outcomes, including:
 - organising work activities to meet all task requirements
 - communicating with others to receive and clarify work instructions
 - reporting regularly to and work as directed by the driller.

Knowledge Evidence

The candidate must be able to demonstrate knowledge to complete the tasks outlined in the elements, performance criteria and foundation skills of this unit, including knowledge of:

- key policies, procedures and established requirements for assisting sonic drilling, including those for:
 - work health and safety
 - emergencies
 - identifying hazards relevant to sonic drilling
 - environmental considerations
 - housekeeping
- types of sonic core barrels, bits, casing and shoes (left hand and right hand threads)
- line of fire hazards associated with sonic drilling sample removal.

Assessment Conditions

Mandatory conditions for assessment of this unit are stipulated below. The assessment must:

- include access to:
 - personal protective equipment
 - equipment required to assist sonic drilling
- be conducted in a safe environment; and,
- be assessed in the context of this sector's work environment; and,
- be assessed in compliance with relevant legislation/regulation and using policies, procedures and processes directly related to the industry sector for which it is being assessed; and,
- confirm consistent performance can be applied in a range of relevant workplace circumstances.

Where personal safety or environmental damage are limiting factors, assessment may occur in a simulated work environment* provided it is realistic and sufficiently rigorous to cover all aspects of this sector's workplace performance, including environment, task skills, task management skills, contingency management skills and job role environment skills.

Assessor requirements

Assessors must be able to clearly demonstrate current and relevant industry knowledge and experience to satisfy the mandatory regulatory standards as set out in the Standards for Registered Training Organisations (RTOs) 2015/Australian Quality Training Framework mandatory requirements for assessors current at the time of assessment and any relevant licensing and certification requirements. This includes:

- vocational competencies at least to the level being delivered and assessed
- current industry skills directly relevant to the training and assessment being provided
- current knowledge and skills in vocational training and learning that informs their training and assessment
- formal relevant qualifications in training and assessment
- having knowledge of and/or experience using the latest techniques and processes
- possessing the required level of RII training product knowledge
- having an understanding and knowledge of legislation and regulations relevant to the industry and to employment and workplaces

- demonstrating the performance evidence, and knowledge evidence outlined in this unit of competency, and
- the minimum years of current** work experience after competency has been obtained as specified below in an industry sector relevant to the outcomes of the unit.

It is also acceptable for the appropriately qualified assessor to work with an industry expert to conduct assessment together and for the industry expert to be involved in the assessment judgement. The industry expert must have current industry skills directly relevant to the training and assessment being provided. This means the industry subject matter expert must demonstrate skills and knowledge from the minimum years of current work experience after competency has been obtained as specified below, including time spent in roles related to the unit being assessed:

Industry sector	AQF indicator level***	Required assessor or industry subject matter expert experience
Drilling, Metalliferous Mining, Coal Mining, Extractive (Quarrying) and Civil Infrastructure	1	1 year
	2	2 years
Drilling, Coal Mining, Extractive (Quarrying), Metalliferous Mining and Civil Infrastructure	3-6	3 years
Other sectors	Where this unit is being assessed outside of the resources and infrastructure sectors assessor and/or industry subject matter expert experience should be in-line with industry standards for the sector in which it is being assessed and where no industry standard is specified should comply with any relevant regulation.	

*Guidance on simulated environments has been stipulated in the RII implementation guide located on VETNet.

**Assessors can demonstrate current work experience through employment within industry in a role relevant to the outcomes of the unit; or, for external assessors this can be demonstrated through exposure to industry by conducting a minimum number of site assessments as determined by the relevant industry sector, across various locations.

*** While a unit of competency does not have an AQF level, where a unit is being delivered outside of a qualification the first numeric character in the unit code should be considered as the AQF indicator level for assessment purposes.

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