



Australian Government

RIINHB219D Assist with air drilling

Release: 3

RIINHB219D Assist with air drilling

Modification History

Release	Comment
1	This unit replaces RIINHB219A Assist with air drilling.
2	Editorial corrections.
3	Required frequency and volume of evidence amended in Performance evidence. Substantial amendments made in Assessment Conditions field, including: references to Industry Sectors, assessor and subject matter expert experience requirements, how assessment should be conducted and what it should confirm.

Application

This unit describes a participant's skills and knowledge required to assist with air drilling in the Resources and Infrastructure Industries.

This unit is appropriate for those working in drillers assistant roles.

Licensing, legislative, regulatory and certification requirements that apply to this unit can vary between states, territories, and Industry sectors. Relevant information must be sourced prior to application of the unit.

Unit Sector

Drilling

Elements and Performance Criteria

1. Plan and prepare for assisting with air drilling	1.1 Access, interpret and apply assist with air drilling documentation and ensure the work activity is compliant 1.2 Obtain, read, interpret, clarify and confirm work requirements 1.3 Identify and address potential risks, hazards and environmental issues and implement control measures 1.4 Select and wear appropriate personal protective equipment for work activities 1.5 Communicate and coordinate activities with others throughout the work activity 1.6 Load, unload and move tools and equipment
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	1.7 Obtain and interpret emergency procedures, and be prepared for fire/accident/emergency
2. Support the air drilling process	2.1 Fit and remove and measure bits and down-hole tools to/from the drill string 2.2 Prepare drill string in readiness for tripping and drilling 2.3 Sharpen drill bits 2.4 Add and remove drill rod to and from the drill string 2.5 Inspect and maintain drill pipe, bits, threads and other down-hole equipment 2.6 Use pipe and casing handling equipment 2.7 Install and seal casing 2.8 Use, install and maintain stuffing boxes and collar T pieces
3. Handle samples	3.1 Obtain and/or lay out samples as required 3.2 Split, bag, label and store samples for transport 3.3 Clean and service sampling equipment 3.4 Obtain uncontaminated samples using appropriate sampling methods 3.5 Identify safety precautions for handling potentially hazardous samples 3.6 Clear blockages in sample and delivery system 3.7 Note and report possible changes to sample quality due to blockages
4. Use restraining devices	4.1 Fit restraining devices 4.2 Identify dangers of high velocity samples in air drilling and take appropriate measures to minimise hazard
5. Mix drilling fluids for air/foam drilling	5.1 Check labels and read and interpret safety information/ hazard codes 5.2 Mix the drilling fluid 5.3 Store drilling fluid components and additives
6. Carry out basic maintenance of tools and equipment	6.1 Perform inspections and routine checks on ancillary equipment such as air compressor and injection pump 6.2 Perform inspections and basic maintenance of pipe handling equipment 6.3 Select and maintain bit sharpening equipment 6.4 Complete housekeeping activities

	6.5	Process records
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Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit. Further information is available in the Resources and Infrastructure Industry Training Package Companion Volume.

Unit Mapping Information

RIINHB219A Assist with air drilling

Links

Companion Volume implementation guides are found in VETNet -

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

Assessment Requirements for RIINHB219D Assist with air drilling

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Performance Evidence

Evidence is required to be collected that demonstrates a candidate's competency in this unit. Evidence must be relevant to the roles within this sector's work operations and satisfy all of the requirements of the performance criteria of this unit and include evidence that the candidate:

- locates and applies relevant documentation, policies and procedures
- implements the requirements, procedures and techniques for the safe, effective and efficient assisting with air drilling including:
 - operating ancillary equipment
 - applying basic maintenance and servicing of auxiliary equipment
 - identifying and measuring bits, shrouds and related components
 - identifying thread types in use
 - applying refuelling procedures for vehicles, drill rigs and ancillary equipment
 - identifying and applying correct lubricants
 - applying correct handling of samples
 - carrying out housekeeping
 - disassemble, inspect and reassemble DTH hammers
 - install restraining devices to pressure and delivery hoses
 - inspection and replacement of inner tubes and sealing devices in RC pipe
 - driving vehicles
 - complying with basic vehicles cleaning procedures
- works effectively with others to undertake and complete the air drilling tasks that meets all of the required outcomes including:

- complying with written and verbal reporting requirements and procedures
- communicating clearly and concisely with others to receive and clarify work instructions
- communicating clearly and concisely with others to resolve coordination requirements prior to commencing and during work activities
- demonstrates completion of assisting with air drilling that safely, effectively and efficiently meets all of the required outcomes on more than one (1) occasion including:
 - fitting/removing and measuring bits and down-hole tools to/from the drill string
 - preparing drill string in readiness for tripping and drilling
 - sharpening drill bits
 - adding/removing drill rod to and from the drill string
 - inspecting and maintaining drill pipe, bits, threads and other down-hole equipment
 - using pipe and casing handling equipment
 - installing and sealing casing
 - using, installing and maintaining stuffing boxes and collar T pieces
 - obtaining uncontaminated samples using appropriate sampling methods
 - mix drilling fluids
 - fitting restraining devices to pressure and delivery hoses

Knowledge Evidence

The candidate must demonstrate knowledge of the following when assisting with air drilling:

- applying safe work practices and identifying and reporting all potential hazards, risks and environmental issues
- identifying the care of samples including storage and transport
- using safety data sheets (SDS)
- complying with the basic operation of compressors and the need for cleanliness when carrying out compressor maintenance
- identifying the critical need to match threads with threads on tubular components
- preparing for drilling operational requirements and procedures
- complying with the theory behind sharpening bits
- complying with the monitoring of sample quality to restrict contamination
- identifying the importance of the correct measurement of bits and other related components
- understanding the methods for clearing blockages in air or rotary holes
- understanding the methods of clearing blocked sample and delivery hoses
- complying with the requirement of restraining devices on all high pressure and delivery hoses
- identifying the potential hazards with the operation of rod handling devices
- being prepared for fire/accident/emergency

Assessment Conditions

- An assessor of this unit must satisfy the requirements of the NVR/AQTF or their successors; and Industry regulations for certification and licensing; and,
- this unit must be assessed in the context of this sector's work environment; and,
- this unit must be assessed in compliance with relevant legislation/regulation and using policies, procedures, processes and operational manuals directly related to the industry sector for which it is being assessed; and,
- assessment may be conducted in conjunction with the assessment of other Units of Competency; and,
- assessment must confirm consistent performance can be applied in a range of relevant workplace circumstances; and,
- assessors must demonstrate the performance evidence, and knowledge evidence as outlined in this Unit of Competency, and through the minimum years of current* work experience specified below in an Industry sector relevant to the outcomes of the unit; or,
- where the assessor does not meet experience requirements a co-assessment or partnership arrangement must exist between the qualified assessor and an Industry subject matter expert. The Industry subject matter expert should hold the unit being assessed (or an equivalent unit) and/or demonstrate equivalence of skills and knowledge at the unit level. An Industry technical expert must also demonstrate skills and knowledge from the minimum years of current work experience specified below in the Industry sector, including time spent in roles related to the unit being assessed; and,
- assessor and Industry subject matter expert requirements differ depending on the Australian Qualifications Framework Level (AQF) of the qualification being assessed and/or Industry Sector as follows:

Industry sector	AQF** Level	Required assessor or Industry subject matter expert experience
Drilling, Metalliferous Mining, Coal Mining, Extractive (Quarrying) and Civil Construction	1	1 Year
	2	2 Years
Drilling, Coal Mining and Extractive (Quarrying)	3-6	3 Years
Metalliferous Mining and Civil Construction	3-6	5 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.	

*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 frequent site assessments across various locations.

**Where a unit is being delivered outside of a Qualification the first numeric character in the Unit code should be considered to indicate the AQF level

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