Australian Government

RIINHB210X Assist surface directional drilling

DRAFT

Release: 1

RIINHB210X Assist surface directional drilling

Modification History

Release	Comments
1	This unit of competency was first released in RII Resources and Infrastructure Industry Training Package Release 13.0.

Application

This unit describes the skills and knowledge required to assist surface directional drilling in mineral exploration and coalbed methane (CBM). It prepares individuals to position, inspect and carry out basic maintenance of tools and equipment including drill rods, in-hole drilling components, hoses and ancillary equipment.

It applies to those working in assistant driller roles. They generally work under supervision to undertake a prescribed range of functions involving known routines and procedures.

Licensing/Regulatory Information

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Pre-requisite unit(s)

No pre-requisite units

Competency field(s)

N/A

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Unit sector(s) RIINHB210X Assist surface directional drilling

Coal mining

Drilling

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	*Performance criteria describe the performance needed to demonstrate achievement of the element.*
1. Plan and prepare to assist with surface directional drilling	1.1 Access, review and confirm hole plan, drilling documentation and work requirements 1.2 Identify and address potential risks, hazards and implement control measures according to site procedures 1.3 Confirm environmental controls, emergency procedures and exclusion zones according to site requirements 1.4 Confirm tools and equipment are available and serviceable according to hole plan and work requirements 1.5 Select and wear personal protective equipment appropriate for work activities 1.6 Communicate and coordinate with driller and crew to confirm work requirements 1.7 Load, unload and move tools and equipment according to safety and job requirements
2. Assist with surface directional drilling	2.1 Position and number drill rods in readiness for drilling 2.2 Inspect in-hole drilling components for wear and damage 2.3 Fit and remove in-hole drilling components to and from the drill string 2.4 Monitor hazards and risks, and confirm safety of self, other personnel, plant and equipment, reporting issues outside own area of responsibility 2.5 Monitor operation for unplanned gas and water leakage and other environmental hazards

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3. Carry out post-drilling processes	3.1 Inspect the drill rods for wear and damage, and dress and grease threads 3.2 Rotate rods and replace according to wear limits and work requirements 3.3 Perform inspections and routine checks on hoses and ancillary equipment and carry out remedial action 3.4 Confirm that drill fluids are contained and disposed of according to workplace procedures and environmental requirements

Range of conditions

N/A

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Assessment Requirements for RIINHB210X Assist surface directional drilling

Performance Evidence

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

- assist with surface directional drilling on at least two occasions, in at least two different hole or ground conditions, on each occasion:
    - confirming tools and equipment are available and serviceable before drilling
    - loading, unloading and moving tools and equipment
    - positioning and numbering drill rods in readiness for drilling
    - fitting and removing in-hole drilling components to and from the drill string
    - inspecting drill rods, in-hole components, hoses and ancillary equipment for wear and damage and taking required action
    - dressing and greasing threads, and rotating and replacing drill rods according to wear limits.

During the above, the candidate must:

- obtain, confirm and apply documentation required to assist surface directional drilling
- identify, monitor and respond to hazards and risks including:
    - implementing control measures, environmental controls, exclusion zones and emergency procedures according to site procedures
    - monitoring for unplanned gas and water leakage and reporting environmental incidents
    - confirming drill fluids are contained and disposed of according to workplace procedures and environmental requirements
    - responding to abnormal conditions, including reporting faults, exercising stop-work authority and following emergency procedures
- implement the requirements, procedures and techniques for assisting with surface directional drilling, including:
    - preparing ancillary equipment, including pumps
    - selecting and wearing personal protective equipment appropriate for work activities
    - complying with work-area housekeeping and clean-up requirements on completion of the work activity
- work with others to meet required outcomes, including:
    - communicating with the driller and crew to receive and clarify work instructions

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- using rig communication methods and equipment
- complying with record keeping and reporting requirements and procedures.

Knowledge Evidence

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

- key policies and procedures and established requirements for assisting surface directional drilling, including those for:
  - work health and safety
  - emergencies
  - environmental controls
  - loading, unloading and handling drilling equipment
  - inspecting and performing maintenance on tools and equipment
  - housekeeping
- the purpose, structure and key content of safety data sheets (SDS), including the hazard, handling, storage and emergency-response information they carry for substances used in surface directional drilling
- types and functions of drill rods, in-hole drilling components, hoses and ancillary equipment used in surface directional drilling, including:
  - how components assemble into the drill string
  - wear and damage indicators and wear limits that trigger remedial action
- roles, responsibilities and objectives of the drilling crew, including the limits of own scope of responsibility and when to report or escalate to the driller or supervisor.

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 surface directional drilling
  - workplace documentation such as hole plans, site plans and procedures, manufacturer instructions and safety data sheets
- be conducted in a safe environment
- be assessed in the context of this sector's work environment
- be assessed in compliance with relevant legislation and regulation and using policies, procedures and processes directly related to the industry sector for which it is being assessed

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- 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.

*Guidance on simulated environments has been stipulated in the RII Companion Volume Implementation Guide.

Industry Experts

An industry expert engaged by an RTO to wholly or partially conduct assessment, independently or together with another assessor, or be involved in an assessment judgement, must also satisfy the assessor requirements in applicable vocational education and training legislation, frameworks and/or standards.

Assessors and industry experts delivering training in the drilling industry sector must also have a minimum of two (2) years industry experience, directly relevant to the training and assessment being provided.

Mandatory Workplace Requirements

Assessment of performance evidence may be in a workplace setting or an environment that accurately represents a real workplace.

Unit Mapping Information

Previous Code and Title	Equivalence	Comments
RIINHB210E Assist surface directional drilling	Equivalent	Updates to application, elements and performance criteria, performance and knowledge evidence, and assessment conditions

Links

Companion volumes, including implementation guides, are found on the national training register - https://training.gov.au/training/details/RII.

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