



Australian Government

RIINHB501E Plan drilling

Release: 1

RIINHB501E Plan drilling

Modification History

Release	Comment
1	This unit replaces RIINHB501D Plan drilling. Amendment made to knowledge evidence, 'seam gas' replaced with 'different methods of'. Mapping table added.

Application

This unit describes a participant's skills and knowledge required to plan drilling in the drilling sector.

This unit is appropriate for those working in management or technical specialist roles.

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

Unit Sector

Drilling

Elements and Performance Criteria

1. Plan and prepare for planning drilling program	1.1 Access, interpret and apply drilling planning documentation and ensure the work activity is compliant 1.2 Define and confirm precise scope of work expected by client and other relevant parties 1.3 Communicate with all parties clearly and concisely to ensure that priorities and special requirements are understood and acted upon 1.4 Negotiate an achievable and acceptable contract with the client within the scope of the driller's legal requirements and legal responsibilities 1.5 Achieve and document agreement on the drilling plan by communicating and clarifying intended objectives and contract requirements with all relevant parties 1.6 Develop, in consultation, a time schedule for all operations
2. Inspect/research site for accessibility, services, hazards, legal and environmental	2.1 Establish size and nature of intended drill sites and designated routes to reach them 2.2 Assess topographical and geological features and identify

problems	preferred drilling sites 2.3 Locate and interpret specific relevant information from maps, diagrams or from other data 2.4 Identify legal and environmental limitations, and hazards applying to site and take appropriate action 2.5 Identify and honour locations of socially or environmentally sensitive areas according to the site agreement 2.6 Check availability and distance of water and/or other local supplies
3. Select appropriate drilling method	3.1 Read and evaluate available data relevant to ground conditions 3.2 Select optimum method of drilling and down hole tools, in consultation with other personnel
4. Prepare cost estimates, quotes and tenders	4.1 Prepare data for quote, listing all necessary activities, materials and sub-contracting services needed 4.2 Allow a contingency sum for identifiable but uncertain factors 4.3 Use mathematical calculations and estimations to determine job costs 4.4 Document and present quote/tender
5. Arrange permits and licences	5.1 Determine and obtain the required permits and licences 5.2 Follow correct application procedures
6. Design and organise drilling program	6.1 Establish action plan to ensure completion of program to client satisfaction, within quality, time and cost parameters 6.2 Communicate scope of work to crew involved in drilling program 6.3 Prepare fieldwork instructions, detailing project location, access, water supply, aims of project and detailed instructions 6.4 Note variations to scope of work/contractual requirements on log 6.5 Select appropriate and available crew and other resources for the job 6.6 Communicate, clearly and concisely, with crew(s) about job requirements, working conditions and roles and responsibilities 6.7 Establish size and nature of intended drill rig sites, and routes for reaching them 6.8 Specify any access track, clearing or bench construction sizes and compaction required to support rigs and equipment 6.9 Clarify availability of site amenities and back up support

	6.10 Decide upon methods of controlling flow off site, disposing of wastes and restoring the site after the operations
7. Prepare WHS plan for site	7.1 Prepare plan to eliminate/mitigate hazards to designated level 7.2 Ensure signs, hazards and warnings are observed and consequences understood 7.3 Determine and acquire required safety equipment 7.4 Incorporate safety rules and regulations, legislation and specific site instructions 7.5 Obtain sign-off on commitment to work health and safety (WHS) plan from crew

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

Code and title current version	Code and title previous version	Comments	Equivalence status
RIINHB501E Plan drilling	RIINHB501D Plan drilling	Knowledge evidence amendments made. Mapping table added.	Equivalent

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 RIINHB501E Plan 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 legislation, documentation, policies and procedures
- implements the procedures and techniques for the safe, effective and efficient planning of drilling programs including:
 - identifying, addressing and reporting potential hazards and risks
 - controlling identified hazards
 - implementing emergency response plan and procedures
 - identifying, addressing and reporting environmental issues
 - checking all contractor-supplied equipment
 - applying negotiation skills with clients and other parties
 - preparing costing, estimations and tenders
 - using project management tools and programs
- works effectively with others to undertake and complete the planning of drilling programs including:
 - preparing for and organising work activities to meet all task requirements
 - communicating clearly and concisely with others to receive and clarify work instructions
 - using a range of communication techniques and aids to advise others of work activity and exclusion zones
 - using written and verbal communications to convey all activities and outcomes for rig operations to others in a clear and concise manner
- demonstrates completion of the planning of drilling that safely, effectively and efficiently meets all of the required outcomes on more than one (1) occasion including:
 - using appropriate method of drilling and down hole tools, in consultation with other personnel identifying, assessing and selecting plan components
 - identifying required information and scope of work

- consulting and negotiating with stakeholders
- researching site for accessibility, services, hazards, legal and environmental problems, and exploring viable options to resolve issues
- evaluating ground conditions and selecting site
- preparing cost estimates and documenting and presenting quote/tender
- identifying and arranging permits and licences
- assessing site hazards and risks and prepare Work Health Safety plan

Knowledge Evidence

The candidate must demonstrate knowledge of the following when planning drilling programs:

- legislative, organisation and site requirement and procedures for:
 - risk assessment and management
 - statutory compliance
 - workplace health and safety
 - environmental management
 - workplace communication
 - quality management
 - contract management
 - plant, equipment and tools maintenance
 - materials deliveries
- accessing, interpreting and applying identifying plant and equipment capabilities and limitations
- inspection/research techniques for collection of data:
 - linear measurement
 - angular measurement
 - by manual/electronic means
- development and implementation of communication systems, processes and procedures
- communication documents including maps, geological and topographical data, diagrams, graphical representation (e.g. maps, diagrams and its uses for interpretation and prediction)
- special requirements for different methods of drilling
- environmental requirements for drill sites
- WHS planning principles

Assessment Conditions

- Assessors must satisfy the Standards for Registered Training Organisations (RTOs) 2015/AQTF mandatory competency requirements for assessors; 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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