



Australian Government

RIIOGD503E Overseer drilling operations

Release: 1

RIIOGD503E Oversee drilling operations

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 oversee drilling operations in drilling. It prepares individuals to organise drilling of surface hole, supervise and participate in nippling up and pressure testing, organise rig up and rig up to spud, and complete and abandon well.

It applies to those working in supervisory roles. They generally perform tasks involving a high level of autonomy which require the application of significant judgement in planning and determining the selection of equipment, roles and techniques for themselves and others. They are required to demonstrate the application of a broad range of technical, managerial, coordination and planning skills.

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

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 oversee drilling operations	1.1 Obtain, interpret and confirm work requirements 1.2 Access, interpret and apply documentation required for overseeing drilling 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 the work activity

ELEMENT	PERFORMANCE CRITERIA
	1.5 Obtain and interpret emergency procedures and identify steps required in case of an emergency 1.6 Confirm personnel coordination requirements at the site are met prior to commencement of work activities
2. Organise drilling of surface hole	2.1 Check and implement strategies designed in contract and well program and communicate to relevant personnel 2.2 Select, obtain and confirm plant, tools, equipment and personnel are on hand for surface hole operations 2.3 Prepare and check integrity of equipment, inspect casing and joints for damage 2.4 Maintain written records and liaise with service companies to rectify faults
3. Supervise and participate in nipping up and pressure testing	3.1 Organise equipment and nipping-up requirements for drilling out 3.2 Identify and carry out pressure testing of all blow out prevention (BOP) equipment according to work requirements and manufacturer specifications 3.3 Carry out rig up to drill out according to work requirements and manufacturer specifications 3.4 Monitor drill out safety processes and test gauge leak off
4. Organise rig up and rig up to spud	4.1 Assign crews to specific jobs and implement performance measures to monitor operations 4.2 Implement monitoring strategies and checks in place to ensure integrity of operations 4.3 Confirm verbal and written work instructions with operator representative for drilling hole 4.4 Conduct crew meetings on total rig safety 4.5 Report damage to plant, tools and equipment, repair or recommend corrective actions 4.6 Confirm mud is mixed as per drilling program 4.7 Carry out pre-spud safety inspections with circulation and spud-in established 4.8 Undertake surveys and report variations to operator representative 4.9 Maintain written records according to workplace procedures 4.10 Supervise running in and cementing of casing with operator representative
5. Complete and abandon well	5.1 Supervise completion and well abandonment with operator representative 5.2 Make preparations to release rig and coordinate shutdown

ELEMENT	PERFORMANCE CRITERIA
	preparation list 5.3 Abandon well
6. Conduct housekeeping activities	6.1 Clean, check, perform maintenance and store plant, tools and equipment 6.2 Report issues identified with plant, tools and equipment

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 critical information from the organisational plan and work programs
Problem-solving	Applies problem solving processes to identify risks, evaluate options and determine solutions

Unit Mapping Information

Supersedes and is equivalent to RIIOGD503D Oversee drilling operations.

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 RIIOGD503E Oversee 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:

- oversee drilling operations on at least two occasions, including:
 - obtaining, checking and providing required equipment and tools
 - assigning crews to specific jobs
 - implementing performance measures to monitor operations
 - carrying out appropriate inspections
 - arranging servicing, repairing and/or returning equipment
 - carry out numerical calculations, including:
 - addition, subtraction, multiplication, division
 - relating normal pressure to temperature
 - using calculator if required
 - using estimating skills
 - basic geometry
 - using metric and imperials and converting between the two
 - calculations relating to pressure density, volume, height, velocity, length, weight
 - measurements.

During the above, the candidate must:

- locate and apply required documentation, policies and procedures
- implement the requirements, procedures and techniques for overseeing drilling operations, including:
 - identifying, addressing and reporting potential hazards and risks
 - carrying out emergency response
 - identifying, addressing and reporting environmental issues
 - preparing written records and reports
 - obtaining and checking required equipment and tools

- ensuring pressure testing of all blow out prevention (BOP) equipment is carried out
- ensuring rig up to drill out is carried out
- monitoring drill out safety processes and test gauge leak off
- completing and abandoning well
- rectifying any identified faults and malfunctions within scope of own role and escalating where required
- work with others to plan, prepare and oversee drilling operations that meets the required outcomes, including:
 - preparing for and organising work activities to meet task requirements
 - complying with written and verbal reporting requirements and procedures
 - communicating with others to receive and clarify work instructions.

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 overseeing drilling operations, including those for:
 - identifying and managing risks
 - identifying, addressing and reporting environmental issues
 - crew management
 - implementing performance measures
 - setting up work activity
 - site isolation, signage and erecting barriers
 - work health and safety
 - selecting all plant, tools and equipment to carry out tasks and checking for faults
 - rig up to spud
 - run in and cementing
 - well abandonment
- BOP specifications
- casing tools and their applications
- equipment types and uses
- drill out procedures
- testing
- drilling programs
- numerical calculations, including:
 - addition, subtraction, multiplication, division
 - relating normal pressure to temperature
 - estimating skills
 - basic geometry
 - metric and imperial conversion

- calculations relating to pressure density, volume, height, velocity, length, weight
- measurements.

Assessment Conditions

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

- include access to:
 - personal protective equipment
 - equipment required to oversee drilling operations
- 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 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 Companion Volume 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.

Links

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