



Australian Government

RIISV301D Conduct and maintain well servicing derrick operation

Release: 3

RIIWSV301D Conduct and maintain well servicing derrick operation

Modification History

Release	Comment
1	This is a new unit
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 conduct and maintain well servicing derrick operations in Drilling.

This unit is appropriate for those working in an operational role.

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

Elements and Performance Criteria

1 Plan and prepare derrick operations	1.1 Access, interpret and apply compliance documentation and ensure the work activity is compliant 1.2 Identify, obtain and wear personal protective equipment 1.3 Obtain, read, confirm and apply work instructions 1.4 Clarify difficulties in carrying out the instructions with the relevant personnel 1.5 Identify, manage and report all potential hazards 1.6 Resolve coordination requirements with others at the site prior to commencing and during work activities and ensure briefings/handover details are read/passed on 1.7 Confirm availability and status of necessary permits to work 1.8 Confirm availability of necessary third party utilities in
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	accordance with operational requirements 1.9 Confirm availability of required quantities and type of consumables against operational requirements 1.10 Select and use/wear personal protective equipment and protective clothing 1.11 Identify errors, omissions and shortages and take appropriate remedial action within functional responsibility 1.12 Inform driller of status of derrick operating equipment
2 Handle tubulars and equipment	2.1 Position tubulars and equipment according to operational requirements 2.2 Assist in making and breaking connections where appropriate 2.3 Identify faults and defects accurately and take appropriate remedial action within functional responsibility 2.4 Handle equipment using safe lifting and handling techniques
3 Inspect and perform routine maintenance of derrick and connected equipment	3.1 Inspect safety lines, ropes, air hoists, monkey board, sheaves, crown block, derrick bolts, pins and welds, and all other lines and equipment in or attached to the derrick 3.2 Lubricate air hoists, sheaves, crown block fast line guide 3.3 Replace defective parts and effect minor repairs 3.4 Perform jobs or tasks such as hanging back of travelling block, replacement of sheaves 3.5 Complete pre-raise and pre-circulation checks
4 Prepare hole for circulation with air/fluid	4.1 Establish correct circulation 4.2 Perform pre-spud safety checks 4.3 Check all connections and valves to manifold/well head are in proper position 4.4 Maintain drilling fluid volume and properties 4.5 Inform driller of current operating conditions 4.6 Maintain written inventory of circulation system/parts 4.7 Check and record mud/fluid additives 4.8 Follow all operators' instructions
5 Participate in head-up and pressure test	5.1 Prepare for necessary equipment changes 5.2 Prepare drilling fluid 5.3 Assist in nipping-up 5.4 Assist driller in BOP testing

6 Clean out well bore/drill plugs	6.1 Consult driller, and follow instructions 6.2 Maintain housekeeping and safe practices during drilling 6.3 Assist in completion or abandonment of well 6.4 Convert between metric and imperial
7 Prepare to commence drilling / circulating operations	7.1 Align equipment on active systems for drilling/circulating 7.2 Turn on and check all appropriate machinery 7.3 Watch for return sand report changes 7.4 Measure and log pit/tank/fluid levels regularly
8 Assist driller on drill floor	8.1 Assist in handling and nipping-up of BOP stack 8.2 Carry out role of assistant to driller when on drill floor
9 Shutdown rig and rig out	9.1 Wash and drain circulation system 9.2 Repair equipment 9.3 Store equipment safely

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

No equivalent unit

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 RIISV301D Conduct and maintain well servicing derrick operation

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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
- works effectively with others to undertake and complete well servicing derrick operations 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 throughout work activities
- demonstrates completion of well servicing derrick operations that safely, effectively and efficiently meets all of the required outcomes on more than one (1) occasion including:
 - loading pipe racks, strap and number tubulars
 - inspecting and performing routine maintenance of derrick and connected equipment
 - cleaning out well bore/drill plugs
 - converting metric and imperial measurements
 - applying numeracy skills to calculate
 - fractions, decimals, percentages
 - volume
 - quantities
 - weight

- length
- density/specific gravity
- temperature
- ph
- basic geometry, e.g. interpreting depth, direction and azimuth and dip of hole
- maintaining housekeeping process during drilling
- performing shutdown and rig out procedures

Knowledge Evidence

The candidate must demonstrate knowledge of conducting and maintaining well servicing derrick operations through:

- accessing, interpreting and applying the organisation and site requirements and procedures
- recognising and report equipment malfunction or failure
- supervising and training others to provided standards
- conducting routine maintenance of derrick
- preparing for drilling operations
- preparing for the tripping of tubulars
- identifying BOP equipment and their operation
- assisting driller in handling and nipple up of bop stack
- keeping circulation system clean and operating well
- looking after equipment and dispose of waste properly
- performing conversion between metric and imperial
- carrying out rig maintenance
- carrying out milling operations
- performing man management/rig management

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 is best assessed in the context of this sector's work environment;
- where personal safety or environmental damage are limiting factors, assessment may occur in a simulated 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; 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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