



Australian Government

RIIOGD301E Conduct and maintain derrick operations

Release: 1

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Modification History

Release	Comment
1	This unit replaces RIIOGD301D Conduct and maintain derrick operations. Two element titles and multiple performance criteria amended. Performance and knowledge evidence amended.

Application

This unit describes a participant's skills and knowledge required to apply conduct and maintain derrick operations in drilling.

This unit is appropriate for those working in operational roles.

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.

Unit Sector

Drilling

Elements and Performance Criteria

1. Plan and prepare for derrick operations	1.1 Access, interpret and apply derrick operations 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 the personal protective equipment appropriate for the work activity 1.5 Clarify difficulties in carrying out the instructions with the relevant personnel 1.6 Resolve coordination requirements with others at the site prior to commencing, during and on completion of the 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
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	1.9 Confirm availability of required quantities and type of consumables against operational requirements 1.10 Identify errors, omissions and shortages and take appropriate remedial action within functional responsibility 1.11 Inform driller of current operating conditions
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. Conduct regular checks and maintenance	3.1 Inspect and perform routine maintenance of derrick and connected equipment 3.2 Lubricate moving equipment relevant to rig specifications 3.3 Complete pre-raise and pre-circulation checks in accordance with statutory and company procedures
4. Prepare for and drill surface hole	4.1 Establish circulation 4.2 Perform pre-spud safety checks 4.3 Check all connections and valves to floor 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 in writing fluid additives 4.8 Check availability of casing equipment 4.9 Follow all operators' instructions
5. Participate in head-up and pressure test	5.1 Preparations for necessary equipment changes 5.2 Prepare drilling fluid 5.3 Assist in nipping-up 5.4 Assist driller in BOP testing
6. Drill main hole	6.1 Consult driller and fluid engineer's program, and follow instructions 6.2 Maintain housekeeping and safe practices during drilling 6.3 Assist in completion or abandonment of well as required

	6.4 Convert between metric and imperial measurements
7. Prepare to commence drilling operations	7.1 Align equipment on active systems for drilling 7.2 Turn on and check all appropriate machinery 7.3 Watch for returns if riser installed 7.4 Measure and log in writing pit levels regularly
8. Assist in running and cementing of casing	8.1 Follow instructions when running casing 8.2 Align valves and fluid system for casing fill-up line 8.3 Rig up, function test, lubricate and operate casing stabbing board if applicable to equipment 8.4 Attach and secure safety lines to all circulating lines 8.5 Circulate fluid in accordance with instructions 8.6 Align fluid system for displacement of cement 8.7 Monitor returns and pits to assess circulation and returns
9. Assist Driller on drill floor	9.1 Assist in handling and nipping-up of BOP stack 9.2 Carry out role of assistant to driller when on drill floor
10. Shutdown rig and rig down	10.1 Wash and drain circulation system 10.2 Inspect equipment and report any faults 10.3 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

Code and title current version	Code and title previous version	Comments	Equivalence status
RIIOGD301E Conduct and maintain derrick operations	RIIOGD301D Conduct and maintain derrick operations	Element titles and performance criteria amended. Performance evidence amended	Not equivalent

Links

Companion Volume implementation guides are found in VETNet -

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