



# DET NORSKE VERITAS

## TYPE APPROVAL CERTIFICATE

CERTIFICATE NO. D-5452

This is to certify that the  
**Mud and Cementing Equipment**

with type designation(s)  
**10K 3.50" OD x 2.30" ID 90 Degree 3D Double Backed Elbow**  
**10K 6.63" OD x 4.90" ID 90 Degree 3D Double Backed Elbow**  
**10K 3.50" OD x 2.30" ID Long Sweep Full Flow Tee**  
**10K 6.63" OD x 4.90" ID Long Sweep Full Flow Tee**

Issued to  
**Metalis Energy Ltd**  
**Northumberland, United Kingdom**

is found to comply with  
**DNV-OS-E101 Drilling Plant October 2013**  
and Det Norske Veritas AS' understanding of the implementation and interpretation of:  
**PSA's "Regulations relating to design and outfitting of the facilities etc. in the petroleum activities" (THE FACILITIES REGULATIONS), January 2011, Ch.VIII**

Application  
See next page.



This Certificate is valid until **2018-06-30**.

Issued at **Høvik** on **2014-03-18**

DNV local station: **Newcastle-upon-Tyne**

Approval Engineer: **Axel Janson**

for Det Norske Veritas AS

Per Esvall  
Head of Section

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid. The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed. If any person suffers loss or damage which is proved to have been caused by any negligent act or omission of Det Norske Veritas, then Det Norske Veritas shall pay compensation to such person for his proved direct loss or damage. However, the compensation shall not exceed an amount equal to ten times the fee charged for the service in question, provided that the maximum compensation shall never exceed USD 2 million. In this provision "Det Norske Veritas" shall mean the Foundation Det Norske Veritas as well as all its subsidiaries, directors, officers, employees, agents and any other acting on behalf of Det Norske Veritas.