

Multitec 9000 and Construction of the Nigale Bridge, Venezuela



Customer	Lankelma Ltd
Product	Multitec 9000
Project	Nigale Bridge
Geology	Lake Maracaibo, Venezuela. Soft to still clays overlying mudstones.
Drilling Technique	Sampling and CPT

Puente Nigale, the second bridge crossing over lake Maracaibo in Venezuela will connect Santa Cruz de Mara with Punta de Palmas. Designed by consultant Cowi, the bridge is being constructed by Brazilian contractor Odebrecht. Lankelma is working for Venezuelan engineering consultant and contractor Geohidra to investigate locations for the foundations of the 10.8km road and rail bridge, which forms part of the new crossing at the Lake's northern end. Lankelma purchased the multipurpose Multitec 9000 drilling rig to combine offshore techniques with nearshore site investigations to determine the laying of the new foundations for the bridge.

Working from JUP Sandpiper, a Combifloat C5 jack-up platform, the Dando Multitec 9000 is drilling boreholes into the sea bed to a maximum depth of 70m, through soft to stiff clays overlying mudstones. Half of the boreholes are for sampling, with core diameter of 102mm. The 10000kg capacity drilling rig is capable of performing various drilling techniques including RC (Reverse Circulation), RAB (Rotary Air Blast), conventional mud, auger, diamond wireline coring and SPT. The rig incorporates a host of new features including remote umbilical tracking for easy tracking and control of the machine, a detachable and foldable mast section that can be fitted for the pulling of 6m drill rods, SPT Swing-in hammer attachment and an automatic rod handler.

Multitec 9000 Drilling Capacities:

4"RC(25kg/m) drill rod= 400m

3 1/2" (13.5kg/m) drill rod= 740m

H wireline (11.6kg/m) drill rod= 862m

N wireline(8kg/m) drill rod= 1250m

Lankelma Ltd

Lankelma is a specialist geotechnical investigation contractor with a staff and equipment resource dedicated to cone penetration testing (CPT). Lankelma offers high quality CPT services which use a range of geotechnical tools such as piezocone, seismic cone and pressuremeter to define ground conditions. Reports are customised to client needs and can range from the delivery of standard factual data to the detailed interpretation of soil profile and properties through the application of geo-statistics and CPT based analytical research. In partnership with selected drilling companies, Lankelma delivers technically challenging geotechnical investigations worldwide.



**For further information about Dando geotechnical drilling rigs visit
<http://www.dando.co.uk/geotechnical-site-investigation>**