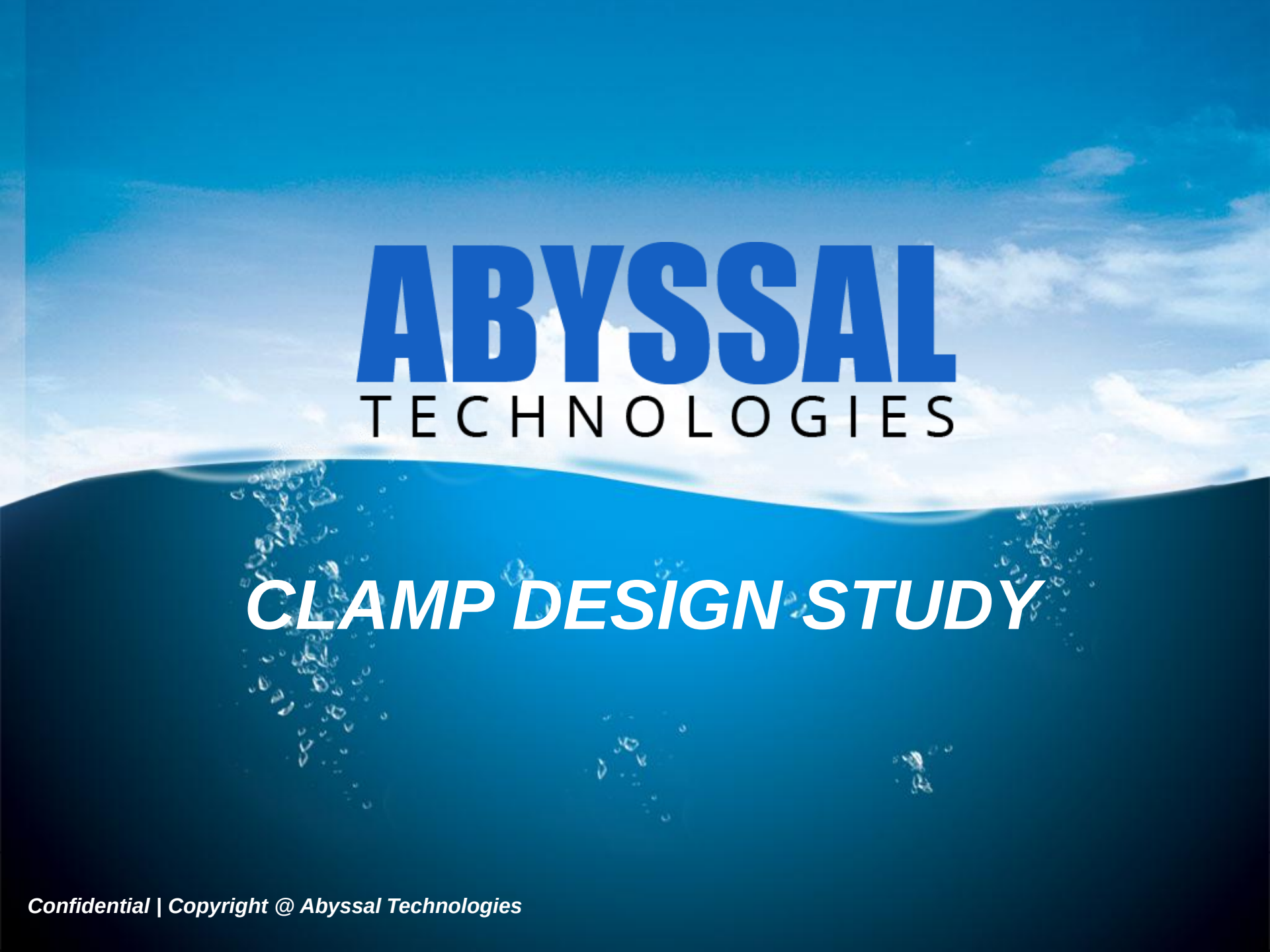




ABYSSAL

TECHNOLOGIES

CLAMP DESIGN STUDY



For existing platform owner an integrity assessment program is carried out to ensure their immediate and future structural integrity and to check their fit for purpose during the intended design lives or beyond.

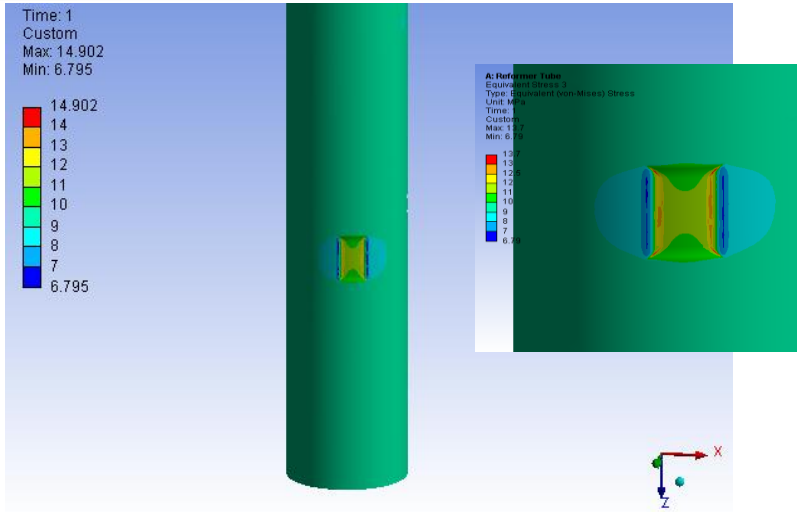
The scope of this study is to provide detail on the clamp design and its finite element analysis for the joints having joint can check unity ratio above unity. All nodes having joint UC above unity and failing in fatigue has been selected for reinforcement using clamps the chord member.



Boundary Constraints



Reformer Tube FEA



OD of Pipe	=141.08 mm
Nominal Thickness of Pipe	=15.0 mm
Length of Pipe	=14000 mm
Local OD of Pipe (area of interest)	=139.88 mm
Local Thickness of Pipe	=13.8 mm
Area of Local Flaw	=53 mm x 33 mm
Distance of Local Area above bottom	=1500 mm

Scope

Finite Element analysis of the reformer tube was performed and Stresses derived from the FEA analysis is checked as per API 530

Input

*3D model created in Design Modeler
FE specification document*

Deliverables

Ansys files and Technical Report

Software

ANSYS 14.5



THANK YOU