HydroNAS™
Piling Noise Mitigation Technology
Offshore Trial Results
18 May 2015

For more details and contact information please go to www.w3gmarine.co.uk
Background and Objective

System Tested:
• Underwater noise mitigation system - HydroNAS
• Developed since 2011
• Offers air sleeve continuous barrier
• Made of flexible, inflatable dropstitch material

Trial Objective:
To confirm the expected noise attenuation across the sleeve barrier during offshore piling operations in close proximity to the noise source

Project Specifics:
• Pile Diameter - 5m
• Pile Length - 40m
• Pile Mass - 224t
• Hammer - IHC S1200
• Water depth - 6m
• Soil - Clay
Method

Deployment method
- HydroNAS was deployed from the pile installation vessel using a deck crane
- The system was ballasted and lowered into the water
- Inside of the system was filled with water

Measurement method
- Two hydrophones were used to measure the noise outside and inside of the barrier
- 24 sets of 20 hammer blows during piling were recorded (480 records)
Results

Noise levels across outside (red) and inside (blue) hydrophones

Top: SEL levels for outside (red) and inside (blue) hydrophones in the 1/3 octave frequency spectrum.
Bottom: Difference between the two hydrophones.