

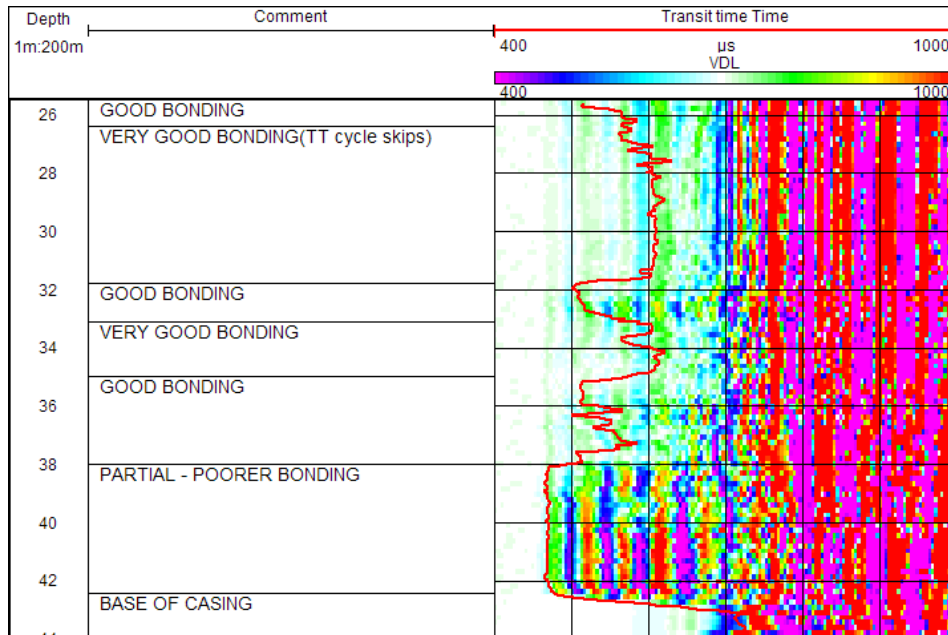


## CEMENT BOND LOG

The sonic tool may be used to assess the condition of the cement/grout bond around steel lining. Where the lining is completely free and unbonded the received sonic signals are of a high (100%) amplitude with signals arriving early. In steel lining that is bonded the received sonic signal is highly attenuated due to energy loss through the grout into the formation.

In this case the amplitudes of the first arrivals are low, the lower the amplitudes the better the bonding.

Under good bonding conditions these early lines of the VDL are faint, light coloured or non-existent.



### Specifications

Size: 1.9m x 60mm  
Weight: 22kg  
Sampling rate: Variable (500 samples at 4ms or slower)  
Resolution: 16 bit; Record length: min 2ms  
Gain settings: 16 levels  
Max. temperature: 80°C

\* in optimum conditions can confirm the presence

### Borehole Conditions

Diameter 80 - 600mm  
**Fluid filled**  
Steel or plastic\* lined

### Logging Conditions

2 - 5 m/min  
Centralised