

# Level One

## SonicVision\* Processing

Company:	<ul style="list-style-type: none"><li>Esso Australia</li></ul>
Well(s):	<ul style="list-style-type: none"><li>BMB_B16</li></ul>
Country:	<ul style="list-style-type: none"><li>Australia</li></ul>
Survey:	<ul style="list-style-type: none"><li>SonicVision*</li></ul>
Logging Date:	<ul style="list-style-type: none"><li>06-Aug-2005</li></ul>
Interval:	<ul style="list-style-type: none"><li>Run-1 (No SonicVision in the string)</li><li>Run-2: 790.3m -1231.2396mMD</li><li>Run-3: 1225.296m-1881.0732mMD</li></ul>
Products:	<ul style="list-style-type: none"><li>Compressional Slowness</li></ul>
Analysis Date:	<ul style="list-style-type: none"><li>09 Aug 2005</li></ul>
Analyst(s):	<ul style="list-style-type: none"><li>Zachariah John Snr Petrophysicist (zach@perth.oilfield.slb.com)</li></ul>

Prepared by:  
Schlumberger Oilfield Australia Pty Ltd  
Data & Consulting Services  
Level 5, 256 St Georges Terrace  
Perth WA 6000  
Telephone: +61-8-9420-4800  
Facsimile: +61-8-9322-3080

\*Mark of Schlumberger

## Quick Look Summary

SonicVision logs were acquired by Esso Australia Pty Ltd in well BMB-B16, Australia logged on Aug 06 2005. This report comments on the field logs and presents the results of a Quick Look processing for compressional slowness.

The SonicVision data was acquired in the following runs so far:

Run-1: No SonicVision logged

Run-2: SonicVision processed from 790.3m to 1231.2396mMD

Run-3: SonicVision processed from 1225m to 1881.0732mMD

The data for each run was loaded into Geoframe\* and processed using BestDT3. BestDT3 software is able to process all Schlumberger sonic logs, both Wireline and LWD.

## Observations:

The sonic in both runs had a strong collar arrival at around 200us/m ( 800us on STplane). This strong collar arrival was masking the DTcompressional in certain intervals.

The following processing was performed in BestDT3:

1. Band pass filter : 10Khz-16Khz. This filter although reduced the collar arrival that was apparent at around 9Khz, but did not improve the coherence of the DTcompressional.
2. F-K filter : This filter was successful in removing the collar arrivals
3. Median residual filter: This filter was also successful in removing the collar arrivals.
4. KL-Collar filter : This filter was NOT successful in removing the collar arrivals.

The processing was performed using the DDBHC mode and for Wideband using F-K filter.

Editing was required to be performed on the labelling to ensure that at some places, the labelled DTCTO was on the highest coherence peak.

The results were tallied with neighbouring well Bream5 to compare the values of DTcomp and the values from this processing for DTCTO compared well.

The **shear arrival** was not coherent enough to pick them up on the STC plane. Moreover, the formations being slow, the DTSM was nearly outside the fluid arrival.

The mud velocity was approximately 628.356 us/m ( 191.6us/ft )

## Deliverables:

The following deliverables are provided with this Quick Look processing:

Report		BMB-B16_sonicvision-Run_2_and_3_processing_report.pdf
Run2	Las file	bmb-b16sonicvisionrun2-processedresults-lasfilepc.las
Run2	Graphics file	bmb-b16sonicvisionrun2-processedresults-graphicsfile.pds
Run3	Las file	bmb-b16sonicvisionrun3-processedresults-lasfilepc.las
Run3	Graphics file	bmb-b16sonicvisionrun3-processedresults-graphicsfile.pds