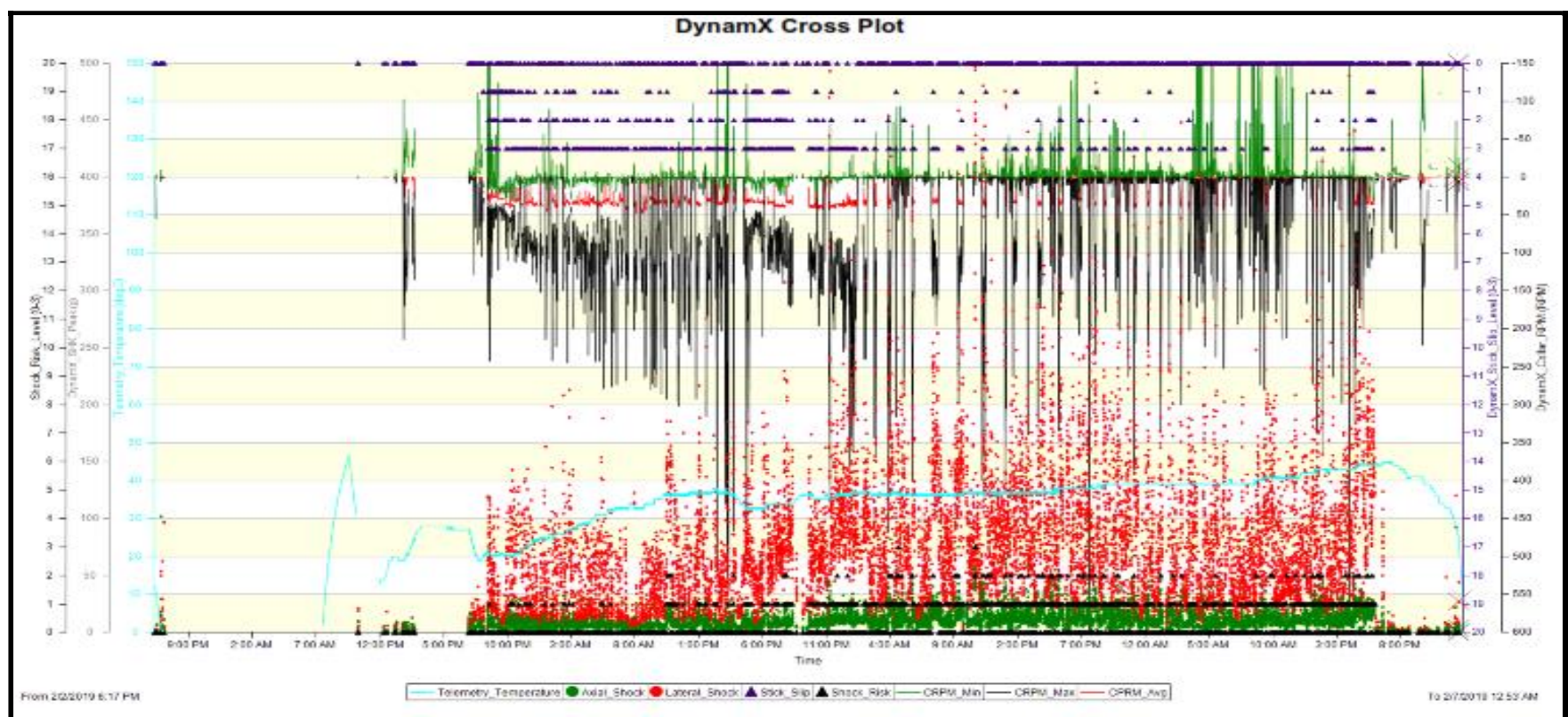


Technical Information & Data Reference

3 AXIS – SHOCK & VIBRATION REAL-TIME LOGGING

KAMBI offers the DynamX - 3 Axis Shock and RPM Sensor Package for use. The data captured and transmitted by DynamX gives our clients the ability to monitor their downhole drilling conditions and adjust drilling parameters to optimize drilling efficiency in real time. More detailed recorded data can also be used post-run to gain a more in-depth understanding of the drilling environment. This can be particularly valuable for ongoing drilling projects as changes can then be made to BHA's and bit selection to further increase drilling performance. DynamX also gives our tools the ability to have different data transmitted while rotating or sliding. This can be used to either stop transmission while rotating to conserve battery life or to stop the transmission of tool faces to provide better density for gamma-ray logging.



3 Axis shock and vibration detection system

“tells” you what happening to your BHA

- Shock Lateral Total, Shock Lateral Maximum - BHA Whirl - Damages Drill String
- Shock Axial Total, Shock Axial Maximum - Bit Bounce - Damages Bits, reduces ROP
- Shock Stick Slip Level, Shock Lateral Level - Over Stress of Tool Joints, Bit Damage
- Negative RPM flag - Backed off tool joints, PDC cutter loss
- WITS transmission to any EDR
- Stop Light system for Real-Time Monitoring

3 AXIS – SHOCK AND VIBRATION LOGGING

1.403.243.4438

www.kambi.ca

Technical Information & Data Reference

3 AXIS – SHOCK & VIBRATION REAL-TIME LOGGING

Shock and vibration events in the drilling environment generally cause damage as a result of cumulative effects on downhole components. By monitoring shock and vibration on real-time tool measurements along with surface indicators, timely changes can be made in the drilling parameters to mitigate the accumulation of shock and vibration damages seen by the BHA.

The data captured and transmitted give our clients the ability to monitor their downhole drilling conditions and adjust drilling parameters to optimize drilling efficiency in real-time. You can watch it all from your office.



Tool Specification	
Rotation	Up to 200 RPM, 20-80 RPM Typical
Shock	1000G, 1/2 msec, 1/2 Sine Shock
Vibration	30G, 30 - 500 Hz
Resolution	1G Minimum

Shock and Vibration final analysis output

- Dynamax Cross Plot
- Pressure Cross Plot
- Error Cross Plot
- Battery Cross Plot
- Formation Cross Plot
- Class D Output
- Accelerometer Cross Plot
- Magnetometer Cross Plot
- Tool Face Cross Plot

3 AXIS – SHOCK AND VIBRATION LOGGING