Gaia Technologies

WXSO

DIGITAL CABLE STANDOFF

The world's first cable-mounted data package.

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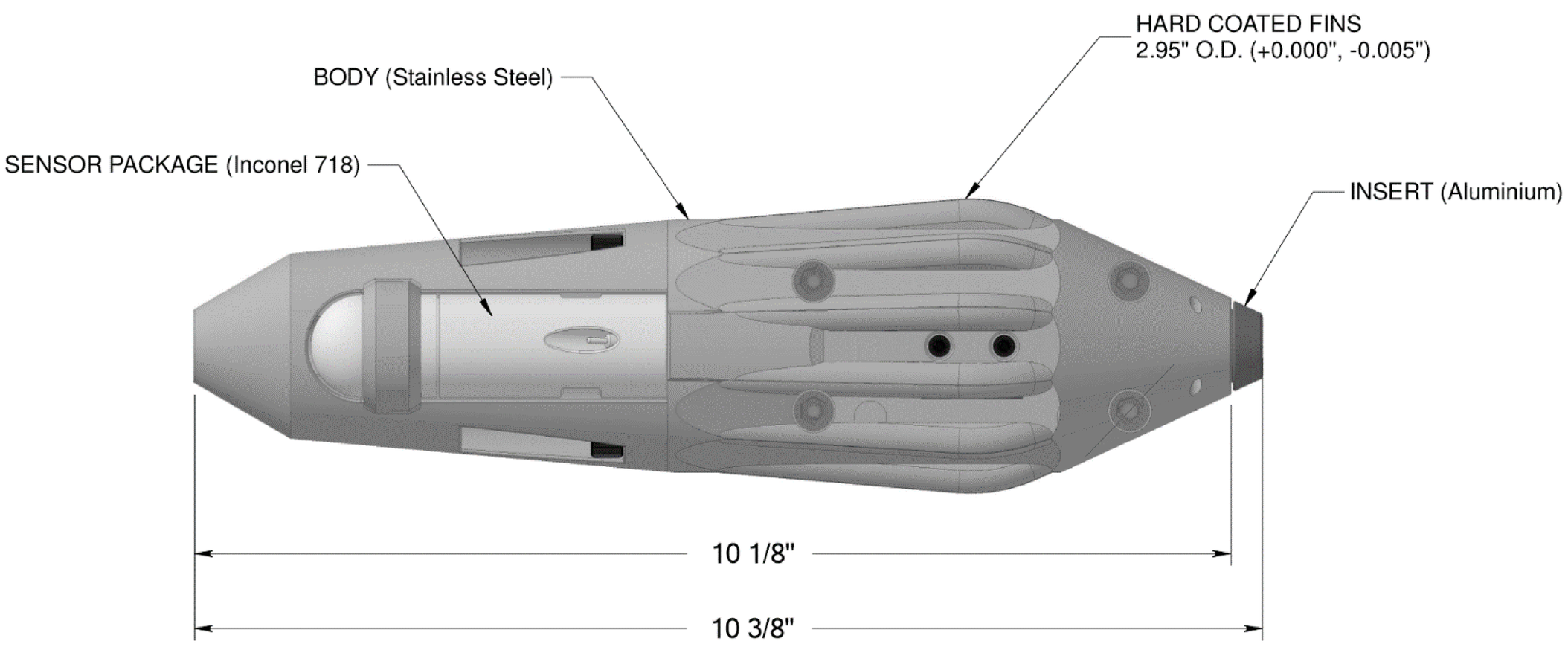
INTRODUCTION

WXSO is the result of Gaia's ongoing R&D into wellbore and cable dynamics (drag, creep and torque) and future conveyance technologies. It can be considered a "black-box" for a logging run. The WXSO provides downhole recordings of borehole data and cable dynamics including pressure, temperature, deviation, rotation, cable movement, road noise and CCL.

- ✓ Under 5 minutes rig time for installation and removal.
- ✓ 6.4 days constant recording at high resolution.
- ✓ Continuous temperature and pressure log.
- ✓ Continuous Extrapolated Temperature Log (CETL), from multiple runs.
- ✓ Mud integrity log.
- ✓ Independent wireline jar firing and re-cocking record.
- ✓ Independent record of all sticking events.
- ✓ Formation test movement analysis, including cable creep analysis.
- ✓ Cable torque log for stranding risk analysis.
- ✓ Loss and influx zone identification.
- ✓ Wellbore transients during clean-up and sampling.
- ✓ Casing collar locator (CCL) log from magnetometer.
- ✓ Cased hole contact log for predicting wireline wear zones.
- ✓ Maximum temperature 150°C (302°F).
- ✓ Maximum pressure 20,000 psi.



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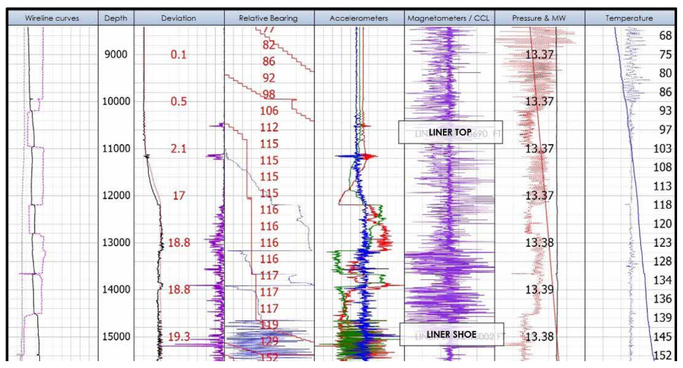
PRODUCTS AND DELIVERABLES

✓ **Depth based logs**

Depth logs include temperature, pressure, average mud weight, cable rotation, CCL and road noise. Road noise can be used as an indicator for possible wear zones in casing.

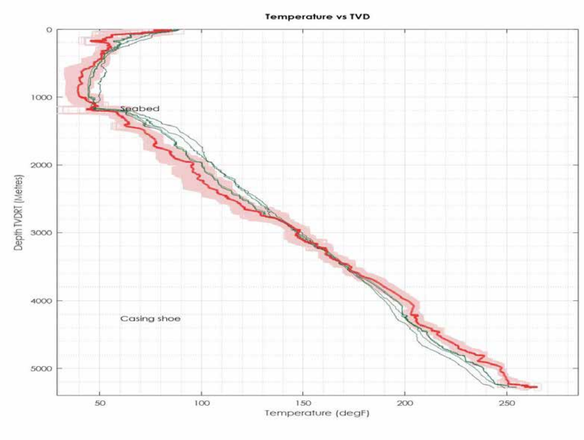


✓ **WXSO Report**

A comprehensive report on all the WXSO data acquired. Includes time and depth logs, station logs, temperature, mud weight, cable rotation and creep analysis, plus analysis of any sticking points encountered on the logging operation.

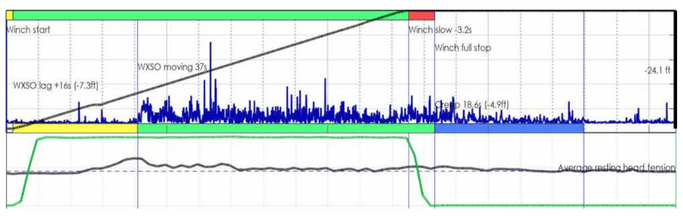
✓ **Continuous Extrapolated Temperature Log (CETL)**

With data from multiple runs, a Continuous Extrapolated Temperature Log can be computed from surface to the deepest WXSO measurement.



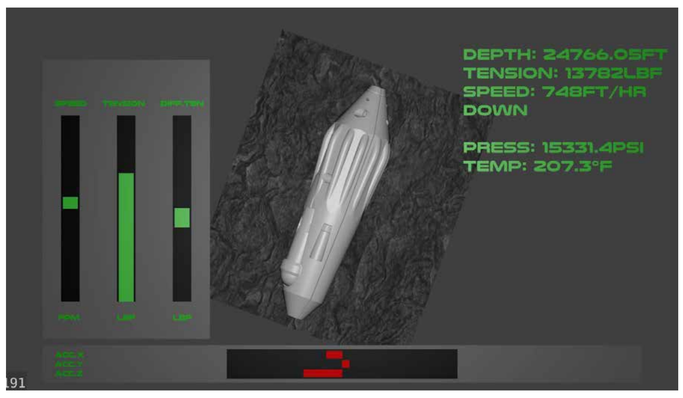
✓ **Movement analysis for Formation Testers**

Through multiple WXSO jobs we have found that on deep or complex wells, winch movement does not necessarily translate to tool movement, which can cause depth discrepancies with stationary surveys. WXSO offers a post-job analysis of tool movement and cable creep, and can offer an explanation for unexpected tight tests.



✓ **Event Visualisation**

Events can be played back as an animation to show cable spin, jar firing, cable creep, stuck tool situations and more.



WXSO clients include:

Apache · BHP · bp · ExxonMobil · Shell · TotalEnergies

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