

# Petromac

CONVEYANCE SYSTEMS FOR WIRELINE LOGGING



Operational  
Efficiency



Sticking  
Prevention



Well Access



Sensor  
Orientation



Centralization

[www.petromac.co.nz](http://www.petromac.co.nz)

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## About us

At Petromac we design and manufacture a broad range of bespoke devices for the wireline logging industry. Petromac devices provide a quantum improvement in risk control for both the wireline logging companies and the operators we serve to deliver significant cost and time saving benefits.

“Petromac started with the sole aim of improving wireline logging efficiency and enhancing log data quality for Operators, particularly in challenging wellbore conditions. Our dedicated regional managers have a wealth of wireline logging experience, and continually strive to push the boundaries through innovation and expertise.”

- Stephen McCormick



## Operational Efficiency

Petromac's Wireline Express conveyance system dramatically improves the operational efficiency of wireline operations. This is realized by enabling conventional wireline operations in challenging wellbores usually logged by alternative conveyance methods such as pipe-conveyed logging, tractor operations and LWD.

Using ultra-low friction wheels that reduce the whole tool drag to enable gravity descents to 80deg deviations and reduce differential sticking risk to negligible levels, customers around the world have drastically improved Operational efficiency while enhancing safety and log quality.



## Sticking Prevention

The Wireline Express conveyance system eliminates differential sticking by carrying the logging tools on wheeled carriages. This sticking risk reduction is achieved because of the following:

- Significant reduction of the total area of contact of the downhole assembly with the borehole wall (~ 99% reduction of contact area compared to a typical sampling string)
- Wheels are able to “roll out of a differential sticking scenario as rolling friction is much less than sliding friction.
- Fluid sampling from the high side of the wellbore allows the weight of the tool to “peel” the packer off the borehole wall



## Well Access

Ledges and Washouts are a significant problem that inherently plagued the wireline operations for decades. Petromac offers a range of holefinders to fit various logging tools. By using the orientation principles, the holefinder is positioned in the center of the wellbore to guide the tool out of a washout without losing momentum.

This ensures that ledges and washouts are seamlessly navigated with a much higher success rate than traditional holefinders.

Petromac's industry leading bearing technology reduces tool drag to less than 10%, as opposed to 30%+ with traditional methods. With such low drag, multiple wireline jobs have been successfully performed in deviations over 80° without the need of pipe conveyance or a tractor.



## Sensor Orientation

A feature unique to the Wireline Express conveyance system, the orientation of the logging tool sensors facilitates many techniques to improve data quality:

- Low side orientation for pad tools
- Fluid sampling from the high side of the wellbore
- X-Y Density in deviated wellbores
- Orients side-wall coring
- Valid Density down-log



## Centralization

Petromac has developed industry-leading logging tool centralization equipment. Since the inception of wireline logging operations, there was no step change in the development of the logging tool centralizers. The conventional centralizers increase drag whilst doing a poor job of centralizing in different scenarios. This had a negative effect on the data quality of the logs (stick-slip) and/or how far the tools could go down in deviated wells. The Petromac centralizers have been developed with two main objectives: to achieve perfect centralization and minimizing the drag associated with achieving perfect centralization to give the operators the perfect log.

