

CASE STUDY: PIPELINE

MADAGASCAR PETROLEUM



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Requirements

A Third Party Interference (TPI) detection system was required to monitor a refined petroleum product pipeline running between the refinery and the shipping port, through heavily populated areas in the city of Toamasina – Madagascar

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Our Solution

The FFT Aura™ system was selected and installed as the replacement for a legacy detection system, and was required to re-use the existing fibre optic cable previously installed, with a total length of 11.4km.

The actual pipeline and sensor cable runs very close to a number of significant noise sources including housing, markets, and industrial facilities making this a particular challenging installation. The cable follows an irregular path with one section looping back on itself. But the largest challenge by far was that the majority of the pipeline runs parallel to an active railway line with only 3 meters separating the railway line from the sensor cable – previously a steady source of nuisance alarms.

Despite these numerous challenges the FFT Aura™ system was successfully commissioned in just 7 days during January 2013. It was tuned and configured to alarm on manual digging and successfully passed all testing by FFT staff as well as the customer during commissioning.

FFT Advantages

- Commissioned quickly in a challenging environment
- Tuned and optimised detection for the events of interest, despite the irregular cable positioning.
- Easily mitigate primary nuisance alarms.
- Optimised small sections of the sensor (such as exposed areas) with alternate sensitivity configurations.
- Improve classification of alarms requiring custom setting by capturing the signals and post analysis with advanced engineering tools off-site and then re-installing remotely.
- Effectiveness of FFT CAMS in providing email alarms to Management remote to the site
- Ability to further upgrade to using SMS gateways to provide alarms to remote staff.

