



PETRONAS

Our Ref. : SKO/BIE5/APR/2014/23
Date : 29th April 2014

TO WHOM IT MAY CONCERN

Dear Sir /Madam,

This letter is served as a request from the exclusive agent **Sonorous Sdn Bhd** for **TelferTech Anti-Marine Fouling System (TOG)** to confirm the installation and trial application of the unit at our offshore facilities.

PCSB Sarawak Operations has carried out an extensive trial by installing and applying the TelferTech Anti-Marine Fouling System or TOG at Tukai Living Quarters on July 7th, 2011 as a supplementary solution to the then problematic sea water lift pumps i.e P70A and P70B. The original intention was to keep marine growth from settling at the caissons, while waiting for permanent solution by RCFA team.

Before the installation of the unit, the pumps had Mean Time Before Failure (MTBF) of less than three months each for the past three years (2007-2010). The total repair cost for the pumps during the 3 years period was about RM 200K. On top of that, Maintenance team had to conduct caisson cleaning which cost about RM80K.

After successful installation of the TOG units, the pumps had zero downtime until todate. Initial plan to clean the caissons every two years is now not necessary to be carried out since both pumps are performing as expected.

Overall, PCSB Sarawak Operations is very satisfied with the performance of the TOG units. On top of that, we have purchased another two units of TOG for TKQ-A Firewater pumps (P71 A and P71B).

Should you have any question, please do not hesitate to contact Mr Ruzlan Hashim at +6085-475688 or ruzlanh@petronas.com.my for further clarification.

Respectfully,
For **PETRONAS CARIGALI SDN BHD**

RUZLAN BIN HASHIM
MANAGER,
INSPECTION AND ASSURANCE,
INTEGRITY AND ENGINEERING DEPARTMENT,
PETRONAS CARIGALI SDN BHD – SARAWAK OPERATIONS

Official Sponsor



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