

# case study

## Mitigating potential downtime for a prominent oil & gas company in Qatar

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### Problem

Elevated temperatures beyond the 90°C warning threshold emerged in a Hitachi Refrigerant compressor, persisting consistently after a recent oil upgrade. Despite MPC values within the normal range at 2.4, a colorless, wax-like substance was visually identified on the interior surfaces of the bearings during physical inspection.

### Solution

With the help of Petrotec, Fluitec's **ESP VITA™ III** unit was attached to the system and bi-weekly samples taken to monitor the progress of the removal of the degradation products.

### Results

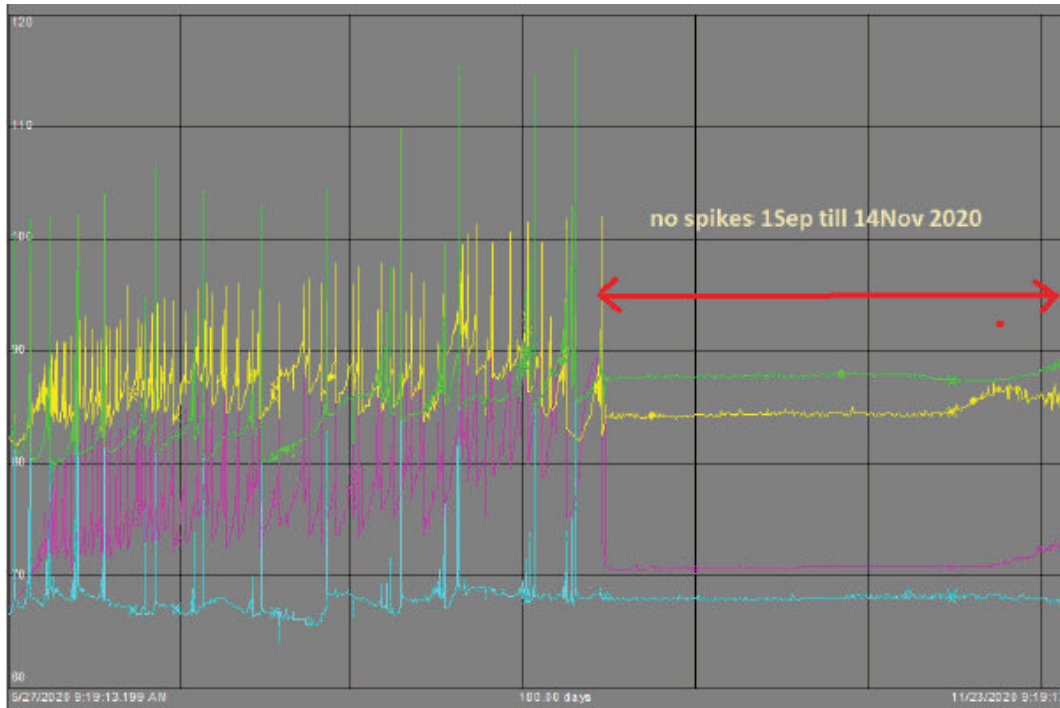
On the same day of connecting the ESP VITA III unit, the bearing temperatures fell by 30°C then normalized below 90°C. Even after disconnecting the unit (15 days later), the temperatures remained below 90°C which eliminated the possibility of a bearing failure.

### Total Saved

# \$76K

<b>Client:</b>	Major Oil & Gas Company
<b>Country:</b>	Qatar
<b>Application:</b>	Hitachi Refrigerant Compressor
<b>Cost savings:</b>	\$76,000 over 5 years
<b>Oil savings:</b>	3,500 liters
<b>CO2e kg saved:</b>	21,625 CO2e kg over 10 years
<b>Solution:</b>	ESP VITA III





Initial MPC



MPC VALUE 2.4

MPC after 15 days



MPC VALUE 1.4

MPC after 30 days



MPC VALUE 1.7

