

Gas Turbine Oil -Sampling Interval and Testing Schedule

ASTM D 4378 – 08

Adopted and Modeled from ASTM D 4378-08 together with Focuslab's testing packages and individual tests .

Schedule 1 : New Oil

Samples from transport or drums or storage tank

Test : TurbineCheck 814 ⁽¹⁾
 RPVOT ⁽²⁾
 FTIR ⁽³⁾
 Rust Preventives
 Copper Corrosion

Schedule 2 : Installation of a New Oil Charge

Samples after 24 hours circulation

Test : TurbineCheck 814 ⁽¹⁾
 RPVOT ⁽²⁾
 FTIR ⁽³⁾

Schedule 3 : For the first 6 month operation -new turbine

Test \ Period-Month	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7
Turbine Oil Analysis -Monitoring (TOA-M)							
TurbineCheck 813							
TurbineCheck 814	814	814	814	814	814	814	814
Turbine Oil Analysis -Quality and Performance (TOA-QP)							
RPVOT 660	660		660		660		660
FTIR 603.1	603.1		603.1		603.1		603.1
Rust Preventive 666	666						
Copper Corrosion 665	665						
Water Separability 662							

Schedule 4 : For the normal operation

Test \ Period-Month	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9	Month 10	Month 11	Month 12	Month 13
Turbine Oil Analysis -Monitoring (TOA-M)													
TurbineCheck 813		813		813		813		813		813		813	
TurbineCheck 814	814		814		814		814		814		814		814
Turbine Oil Analysis -Quality and Performance (TOA-QP)													
RPVOT 660	660				660				660				660
FTIR 603.1	603.1				603.1				603.1				603.1
Rust Preventive 666													666
Copper Corrosion 665													665
Water Separability 662													662
Foaming 661													661
Air Release 663													663

Note

The Schedule 3 and schedule 4 should be used as a guide. Increase frequency is required for a severe turbine or for oils approaching the end of their life.

The sample interval frequency is based on continuous operation or total accumulated service time.

If contamination is suspected ,some teste in TOA-QP test, may be useful to determine degree and effect of contaminants present.

The Month 7 of schedule 3 is the same month for the Month 1 of schedule 4

(1) TurbineCheck 814 is included RULER or Volatmmetry , (2) RPVOT or previously known as RBOT ,

(3) FTIR = Fourier Transform InfraRed

ASTM D 4378 -08 Standard Practice for In-Service Monitoring of Mineral Turbine Oils for Steam and Gas Turbines