

LubAnac

gas

➤ The diagnostics system for industrial gas engines

LubAnac GAS is an in-depth diagnostics system for the follow-up of the behaviour and depletion of the lubricant and the mechanical wear of industrial gas engines. It allows to reduce maintenance cost, improve reliability of the engine and optimise drain oil intervals.

LubAnac GAS is recommended for:

- Follow-up of engines operating on different types of gas such as natural gas, landfill gas, sewage gas, biogas or liquid manure gas.
- Determination of the optimal oil drain period in line with the recommendations of the manufacturer (OEM) with specific and dedicated lubricants.

➤ Measured characteristics

Mechanical wear:

Wear elements : Iron, Lead, Copper, Tin, Chromium, Aluminium, Nickel (ppmc)

Contamination of the lubricant:

Silicon (ppm), Soot (%), Water (%), Cooling Liquid (presence of Na/K and B in ppm)

Optional : chlorine concentration coming from landfill gas

Characteristics of the lubricant:

Kinematic viscosity (mm²/s) at 40°C and at 100°C, viscosity index.

Base Number TBN (mg KOH/g)

Acid Number TAN (mg KOH/g)

Initial pH (IpH)

Infrared spectrometry:

- determination of oxidation (Abs/cm at 1710 cm⁻¹)
- determination of nitration (Abs/cm at 1630 cm⁻¹)

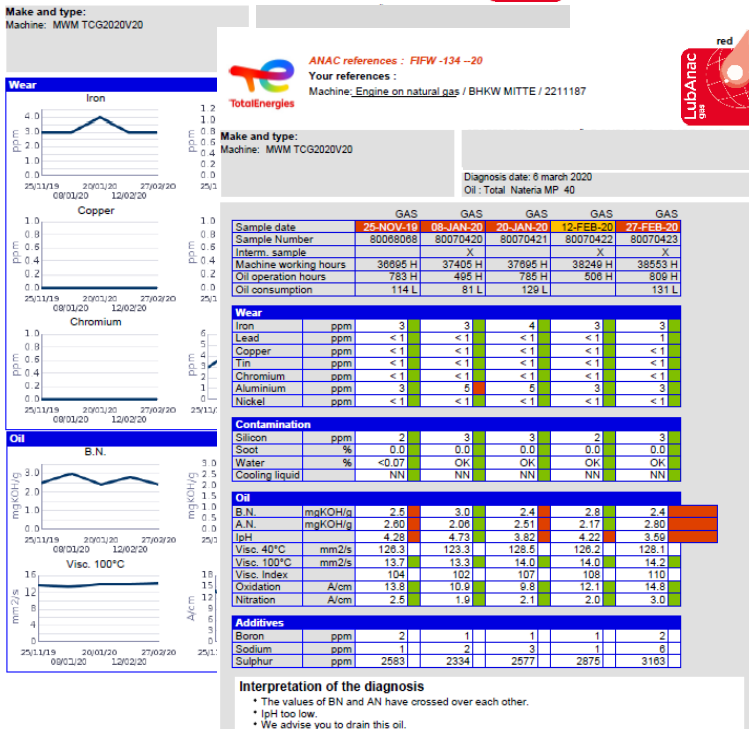
Optional:

Additive elements Ca, Zn, P, Mg, Mo, Ba, V, Na, B, K, Ag

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➤ Presentation of results

The diagnosis report is available within 36 hours after reception of the oil sample in the lab and can be dispatched either by e-mail or can be consulted on a secured Internet portal.



- Colour code : green, orange, red
- Administrative data on customer, machine, part, oil sample
- Wear elements and evaluation (colour)
- Contamination elements and evaluation (colour)
- Characteristics of the lubricant and evaluation (colour)
- Oxydation and nitration
- Comments:
 - User memo
 - Diagnosis Comments by the LubAnac specialist
 - Remarks

The history of the 5 most recent diagnosis is displayed on the report. Reports are available in 19 languages. It is not possible to mix the history of LubAnac GAS samples with other LubAnac routines.

A website that helps to manage the park monitoring: lubanac.totalenergies.com A personal and secured access for:

- the consultation of new reports and history
- the possibility of creating QR codes for machine identification
- the management of diagnosis data
- the download of the data in Excel or pdf files
- compatible with smartphones & tablets



➤ Diagnosis and comments

The diagnosis and comments are established with the support of the LubAnac database and individually verified by the LubAnac technicians, specialised in industrial gas engine lubrication and technology. The LubAnac GAS diagnosis applies the limits indicated by every individual gas engine OEM, for wear metals as well as for oil characteristics. The LubAnac GAS technicians take into account the specific knowledge on the operating conditions of industrial gas engines and possible remarks by the user. More than 25 years experience in the follow-up of combustion engines running on every type of gas. Personalised responses on questions by the users are provided.

