LubAnac coolant

Diagnostic system for cooling liquids

LubAnac COOLANT is an in-depth diagnosis for the follow-up of cooling liquids and cooling systems, which allows fleet managers to reduce the maintenance costs of their machine park.

LubAnac COOLANT is recommended in the following cases:
- Detailed follow-up of the coolant behaviour and the condition of the system the cooling liquid is operating in.
- Punctual analysis and diagnosis in certain cases (breakdown, complaint, expertise...)
- Compliance check of the properties of the cooling liquid in use with the new cooling liquid.

Measured characteristics

LubAnac COOLANT

LubAnac COOLANT determines the physico-chemical properties of the cooling liquid and its protection against corrosion and temperature.

Appearance, pH, Reserve Alkalinity, density.

Protection against temperature:
Ratio antifreeze/water, freezing and boiling temperature (%, °C)

Corrosion of the cooling system:
Spectrometric determination (ICP) of elements: Fe, Pb, Cu, Sn, Cr, Al, Ni, Zn, Ba (ppm)

Protection against corrosion:
Determination of the concentration corrosion inhibitors, organic and mineral. (ppm)

Water pollutions:

Determination of Sulphates and chlorides concentrations, water hardness, Mg, Ca (ppm)

Oxidation of glycol present in the cooling liquid:

Glycolates (ppm)

LubAnac COOLANT VISIO

LubAnac COOLANT + Pollution by sediments:
Detection and qualification of the pollution by solid particles (of medium and big dimension >5µ) by filtration and microscopic observation.

TotalEnergies

LubAnac coolant

COOLANT GRID

	TYPE ANALYSIS	UNIT	COOLANT	COOLANT VISIO
CHARACTERISTICS	Appearance		✓	✓
	pH		✓	✓
	Colour		✓	✓
	RA 3,5	ml HCL/0,1 N	✓	✓
	RA 5,5	ml HCL/0,1 N	✓	✓
	Density	g/mL	✓	✓
PROTECTION	Glycol	% (Vol)	✓	✓
	Water	% (Vol)	✓	✓
	Freezing point	°C	✓	✓
	Boiling point	°C	✓	✓
METAL CORROSION INHIBITORS	Yellow metal	mg/kg	✓	✓
	Steel	mg/kg	✓	✓
	General 1	mg/kg	✓	✓
	General 2	mg/kg	✓	✓
	General 3	mg/kg	✓	✓
ADDITIVES	Phosphorus	mg/kg	✓	✓
	Boron	mg/kg	✓	✓
	Molybdenum	mg/kg	✓	✓
	Silicon	mg/kg	✓	✓
	Sodium	mg/kg	✓	✓
	Potassium	mg/kg	✓	✓
	Nitrates	mg/kg	✓	✓
	Nitrites	mg/kg	✓	✓
	Phosphates	mg/kg	✓	✓
METAL POLLUTIONS	Tin	mg/kg	✓	✓
	Lead	mg/kg	✓	✓
	Nickel	mg/kg	✓	✓
	Iron	mg/kg	✓	✓
	Chromium	mg/kg	✓	✓
	Aluminium	mg/kg	✓	✓
	Copper	mg/kg	✓	✓
	Zinc	mg/kg	✓	✓
	Barium	mg/kg	✓	✓
GLYCOL OXIDATION	Glycolate	mg/kg	✓	✓
WATER POLLUTIONS	Sulphates	mg/kg	✓	✓
	Chlorides	mg/kg	✓	✓
	Water hardness	deg TH	✓	✓
	Magnesium	mg/kg	✓	✓
	Calcium	mg/kg	✓	✓
INSOLUBILITY	Insolubility	%		✓
	Filtration			✓

TotalEnergies

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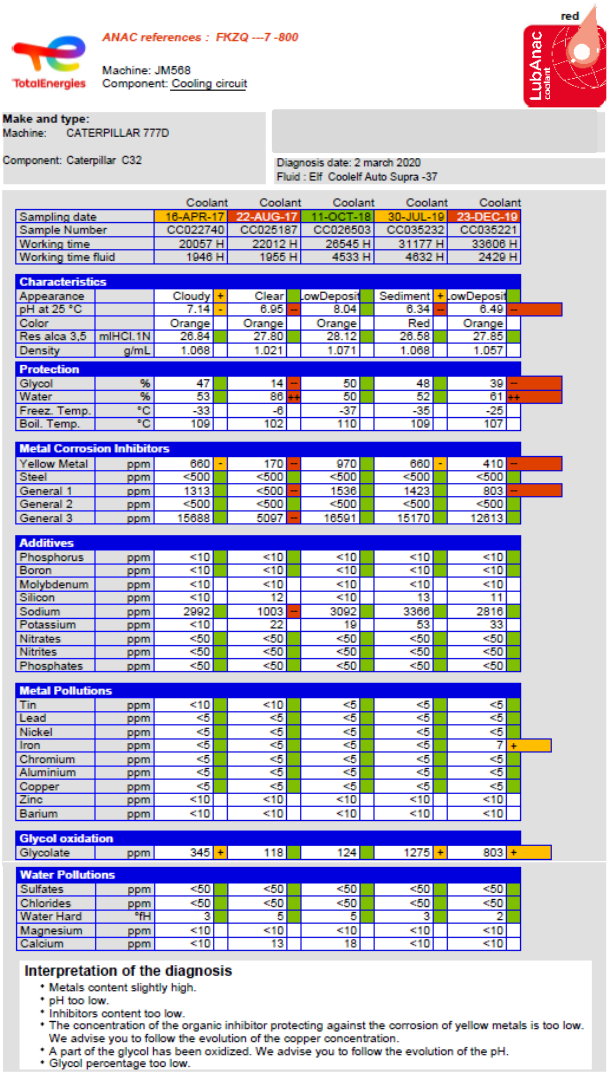
Presentation of results

The diagnosis report is in 95% of cases available within 1 week after reception in the lab.
The results can be dispatched by e-mail or can be viewed on a secured portal on the Internet.

Satisfying diagnostic — Slight deviations — Anomaly observed — Dangerous situation



ANAC references : FKZQ ---7 -800

Machine: JM568
Component: Cooling circuit

red

Make and type:
Machine: CATERPILLAR 777D

Component: Caterpillar C32

Diagnosis date: 2 march 2020
Fluid : Elf Coolelf Auto Supra -37

		Coolant	Coolant	Coolant	Coolant	Coolant
Sampling date		16-APR-17	22-AUG-17	11-OCT-18	30-JUL-19	23-DEC-19
Sample Number		CC022740	CC025187	CC026503	CC035232	CC035221
Working time		20057 H	22012 H	26545 H	31177 H	33606 H
Working time fluid		1946 H	1955 H	4533 H	4632 H	2429 H
Characteristics						
Appearance		Cloudy +	Clear	LowDeposit	Sediment +	LowDeposit
pH at 25 °C		7.14 -	6.95 --	8.04	6.34 --	6.49 --
Color		Orange	Orange	Orange	Red	Orange
Res alca 3,5	mlHCl.1N	26.84	27.80	28.12	26.58	27.85
Density	g/mL	1.068	1.021	1.071	1.068	1.057
Protection						
Glycol	%	47	14 --	50	48	39 --
Water	%	53	86 ++	50	52	61 ++
Freez. Temp.	°C	-33	-6	-37	-35	-25
Boil. Temp.	°C	109	102	110	109	107
Metal Corrosion Inhibitors						
Yellow Metal	ppm	660 -	170 --	970	660 -	410 --
Steel	ppm	<500	<500	<500	<500	<500
General 1	ppm	1313	<500 --	1536	1423	803 --
General 2	ppm	<500	<500	<500	<500	<500
General 3	ppm	15688	5097 --	16591	15170	12613
Additives						
Phosphorus	ppm	<10	<10	<10	<10	<10
Boron	ppm	<10	<10	<10	<10	<10
Molybdenum	ppm	<10	<10	<10	<10	<10
Silicon	ppm	<10	12	<10	13	11
Sodium	ppm	2992	1003 --	3092	3366	2816
Potassium	ppm	<10	22	19	53	33
Nitrates	ppm	<50	<50	<50	<50	<50
Nitrites	ppm	<50	<50	<50	<50	<50
Phosphates	ppm	<50	<50	<50	<50	<50
Metal Pollutions						
Tin	ppm	<10	<10	<5	<5	<5
Lead	ppm	<5	<5	<5	<5	<5
Nickel	ppm	<5	<5	<5	<5	<5
Iron	ppm	<5	<5	<5	<5	7 +
Chromium	ppm	<5	<5	<5	<5	<5
Aluminium	ppm	<5	<5	<5	<5	<5
Copper	ppm	<5	<5	<5	<5	<5
Zinc	ppm	<10	<10	<10	<10	<10
Barium	ppm	<10	<10	<10	<10	<10
Glycol oxidation						
Glycolate	ppm	345 +	118	124	1275 +	803 +
Water Pollutions						
Sulfates	ppm	<50	<50	<50	<50	<50
Chlorides	ppm	<50	<50	<50	<50	<50
Water Hard	°fH	3	5	5	3	2
Magnesium	ppm	<10	<10	<10	<10	<10
Calcium	ppm	<10	13	18	<10	<10

Interpretation of the diagnosis

- Metals content slightly high.
- pH too low.
- Inhibitors content too low.
- The concentration of the organic inhibitor protecting against the corrosion of yellow metals is too low. We advise you to follow the evolution of the copper concentration.
- A part of the glycol has been oxidized. We advise you to follow the evolution of the pH.
- Glycol percentage too low.

← Colour code : green , orange, red

← Registered data relative to the customer, material and cooling system.

← Registered data relative to the sample: number and operating hours

← Coolant properties

← Protection against temperature

← Protection against corrosion

← Additives or pollution of the coolant

← Corrosion of the cooling system

← Glycol oxidation

← Water pollutions

← Information:
- Info communicated by the customer
- Interpretation of the diagnosis by a LubAnac expert
- Comments

The 5 latest diagnosis are displayed. Reports are available in English, French, German, Dutch, Italian, Spanish and Portuguese.

A personal and secured access for:

- the consultation of new reports and history
- the possibility of making queries
- the download of the data in Excel files
- mobile version for smartphones & tablets

Diagnosis and comments

The diagnosis are based on a personalized interpretation of the diagnoses, with specific analysis routines for mineral and organic liquids. Our experts have more than 20 years experience in coolant analysis.
The website allows a user-friendly management of the analysis data.
Results are available by e-mail or on our secured internet portal.

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