OIL ANALYSIS REPORT

Machine Id
413135
Component
Diesel Engine
Fluid
NOT GIVEN (--- GAL)

Sample Rating Trend

VISCOSITY

DIAGNOSIS

Recommendation

The component was not specified so we have determined that this is a diesel engine based on the fluid type in use. Please specify the correct component type on your next sample. No corrective action is recommended at this time. Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

Wear

All component wear rates are normal.

Contamination

Fuel content negligible. Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

Fluid Condition

Viscosity of sample indicates oil is within SAE 5W30 range, advise investigate. The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**GFL0086483**	---	---
Sample Date		Client Info		**17 Jul 2023**	---	---
Machine Age	hrs	Client Info		**564**	---	---
Oil Age	hrs	Client Info		**0**	---	---
Oil Changed		Client Info		**Changed**	---	---
Sample Status				**ABNORMAL**	---	---

CONTAMINATION		method	limit/base	current	history1	history2
Glycol		WC Method		**NEG**	---	---

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>120	**32**	---	---
Chromium	ppm	ASTM D5185(m)	>20	**<1**	---	---
Nickel	ppm	ASTM D5185(m)	>5	**3**	---	---
Titanium	ppm	ASTM D5185(m)	>2	**0**	---	---
Silver	ppm	ASTM D5185(m)	>2	**1**	---	---
Aluminum	ppm	ASTM D5185(m)	>20	**6**	---	---
Lead	ppm	ASTM D5185(m)	>40	**8**	---	---
Copper	ppm	ASTM D5185(m)	>330	**297**	---	---
Tin	ppm	ASTM D5185(m)	>15	**3**	---	---
Antimony	ppm	ASTM D5185(m)		**0**	---	---
Vanadium	ppm	ASTM D5185(m)		**0**	---	---
Beryllium	ppm	ASTM D5185(m)		**0**	---	---
Cadmium	ppm	ASTM D5185(m)		**0**	---	---

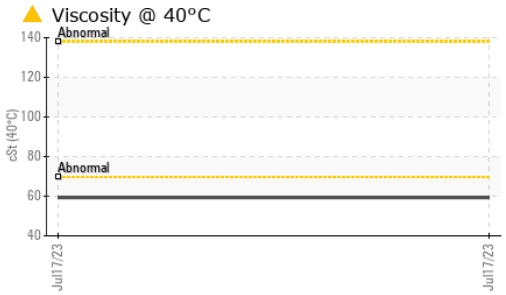
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)		**209**	---	---
Barium	ppm	ASTM D5185(m)		**<1**	---	---
Molybdenum	ppm	ASTM D5185(m)		**119**	---	---
Manganese	ppm	ASTM D5185(m)		**4**	---	---
Magnesium	ppm	ASTM D5185(m)		**698**	---	---
Calcium	ppm	ASTM D5185(m)		**1442**	---	---
Phosphorus	ppm	ASTM D5185(m)		**720**	---	---
Zinc	ppm	ASTM D5185(m)		**810**	---	---
Sulfur	ppm	ASTM D5185(m)		**1969**	---	---
Lithium	ppm	ASTM D5185(m)		**<1**	---	---

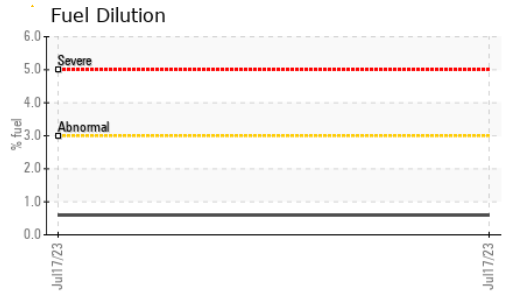
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>25	**66**	---	---
Sodium	ppm	ASTM D5185(m)		**3**	---	---
Potassium	ppm	ASTM D5185(m)	>20	**11**	---	---
Fuel	%	ASTM D7593*	>3.0	**0.6**	---	---

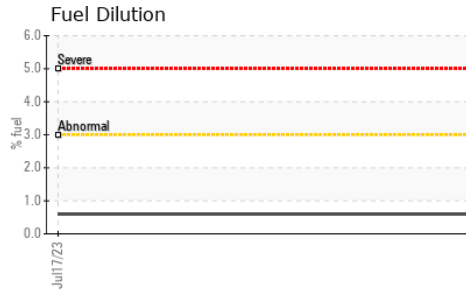
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>4	**0.1**	---	---
Nitration	Abs/cm	ASTM D7624*	>20	**10.0**	---	---
Sulfation	Abs/.1mm	ASTM D7415*	>30	**25.1**	---	---

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414*	>25	**22.9**	---	---

OIL ANALYSIS REPORT



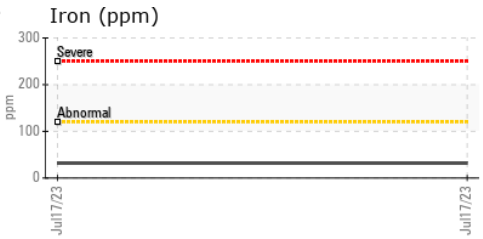


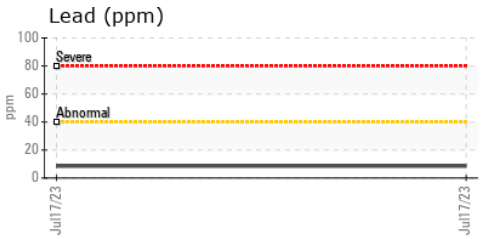


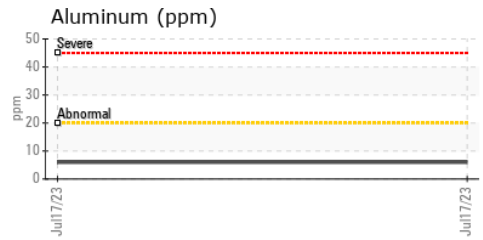
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	**NONE**	---	---
Yellow Metal	scalar	Visual*	NONE	**NONE**	---	---
Precipitate	scalar	Visual*	NONE	**NONE**	---	---
Silt	scalar	Visual*	NONE	**NONE**	---	---
Debris	scalar	Visual*	NONE	**NONE**	---	---
Sand/Dirt	scalar	Visual*	NONE	**NONE**	---	---
Appearance	scalar	Visual*	NORML	**NORML**	---	---
Odor	scalar	Visual*	NORML	**NORML**	---	---
Emulsified Water	scalar	Visual*	>0.2	**NEG**	---	---
Free Water	scalar	Visual*		**NEG**	---	---

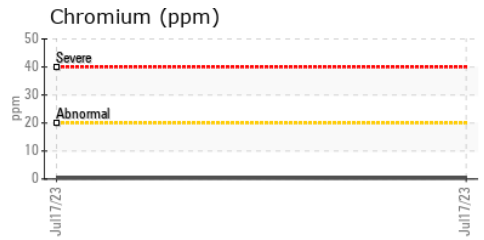
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)		▲ **59.3**	---	---
Visc @ 100°C	cSt	ASTM D7279(m)		▲ **9.8**	---	---
Viscosity Index (VI)	Scale	ASTM D2270*		**150**	---	---

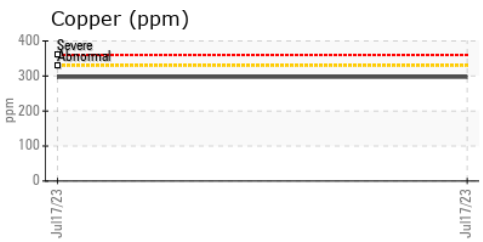
GRAPHS

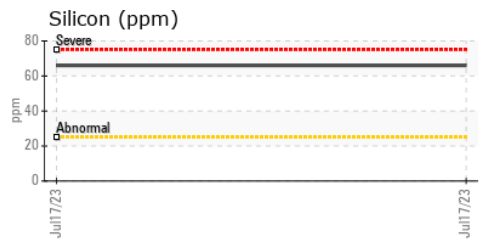


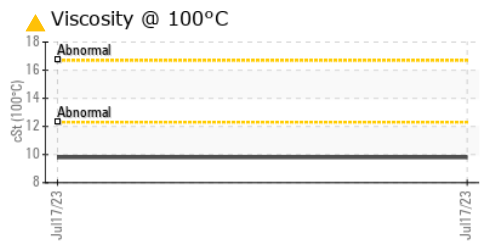


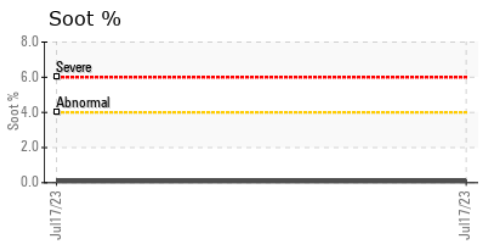












ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0086483
Lab Number : 02570804
Unique Number : 5607850
Test Package : MOB 1 (Additional Tests: FuelDilution, KV40, PercentFuel, VI, Visual)

Received : 19 Jul 2023
Diagnosed : 20 Jul 2023
Diagnostician : Kevin Marson

To discuss this sample report, contact Customer Service at 1-800-268-2131.
Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
Validity of results and interpretation are based on the sample and information as supplied.

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