MOBIL LUBE 360 OIL DIAGNOSTICS

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ABNORMAL

Machine Id
414012
Component
Diesel Engine
Fluid
SAE 15W40 (--- GAL)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

WEAR

Metal levels are typical for a new component breaking in.

CONTAMINATION

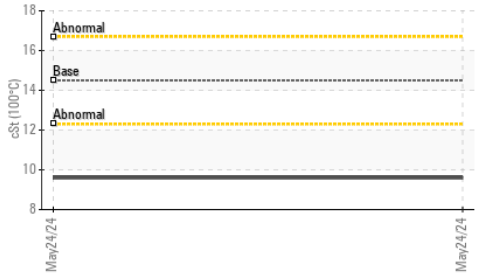
Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. Tests indicate that there is no fuel present in the oil. There is no indication of any contamination in the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

FLUID CONDITION

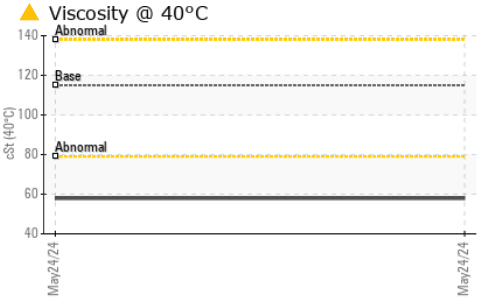
Viscosity of sample indicates oil is within SAE 5W30 range, advise investigate. The condition of the oil is acceptable for the time in service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0100707	---	---
Sample Date		Client Info		24 May 2024	---	---
Machine Age	kms	Client Info		24777	---	---
Oil Age	kms	Client Info		0	---	---
Filter Age	kms	Client Info		0	---	---
Oil Changed		Client Info		Changed	---	---
Filter Changed		Client Info		Changed	---	---
Sample Status				ABNORMAL	---	---
Iron	ppm	ASTM D5185(m)	>120	48	---	---
Chromium	ppm	ASTM D5185(m)	>20	<1	---	---
Nickel	ppm	ASTM D5185(m)	>5	9	---	---
Titanium	ppm	ASTM D5185(m)	>2	0	---	---
Silver	ppm	ASTM D5185(m)	>2	0	---	---
Aluminum	ppm	ASTM D5185(m)	>20	13	---	---
Lead	ppm	ASTM D5185(m)	>40	5	---	---
Copper	ppm	ASTM D5185(m)	>330	248	---	---
Tin	ppm	ASTM D5185(m)	>15	3	---	---
Vanadium	ppm	ASTM D5185(m)		0	---	---
White Metal	scalar	Visual*	NONE	NONE	---	---
Yellow Metal	scalar	Visual*	NONE	NONE	---	---
Silicon	ppm	ASTM D5185(m)	>25	91	---	---
Potassium	ppm	ASTM D5185(m)	>20	35	---	---
Fuel	%	ASTM D7593*	>3.0	0.0	---	---
Water		WC Method	>0.2	NEG	---	---
Glycol		WC Method		NEG	---	---
Soot %	%	ASTM D7844*	>4	0.1	---	---
Nitration	Abs/cm	ASTM D7624*	>20	9.8	---	---
Sulfation	Abs/.1mm	ASTM D7415*	>30	25.5	---	---
Silt	scalar	Visual*	NONE	VLITE	---	---
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	---	---
Sodium	ppm	ASTM D5185(m)	>57	4	---	---
Boron	ppm	ASTM D5185(m)		209	---	---
Barium	ppm	ASTM D5185(m)		<1	---	---
Molybdenum	ppm	ASTM D5185(m)		118	---	---
Manganese	ppm	ASTM D5185(m)		4	---	---
Magnesium	ppm	ASTM D5185(m)		671	---	---
Calcium	ppm	ASTM D5185(m)		1403	---	---
Phosphorus	ppm	ASTM D5185(m)		665	---	---
Zinc	ppm	ASTM D5185(m)		756	---	---
Sulfur	ppm	ASTM D5185(m)		1847	---	---
Oxidation	Abs/.1mm	ASTM D7414*	>25	22.4	---	---
Visc @ 40°C	cSt	ASTM D7279(m)	115	▲ 57.9	---	---
Visc @ 100°C	cSt	ASTM D7279(m)	14.5	▲ 9.6	---	---
Viscosity Index (VI)	Scale	ASTM D2270*	128	149	---	---

Viscosity @ 100°C

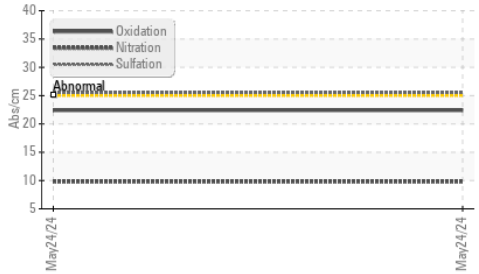


Viscosity @ 40°C

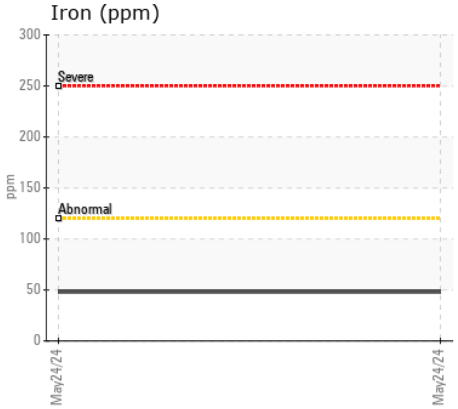


Fuel Dilution

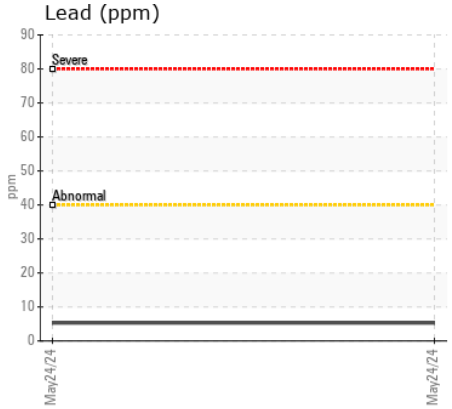
FT-IR (Direct Trend)



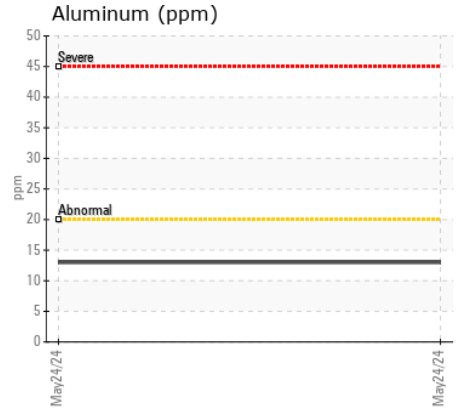
Iron (ppm)



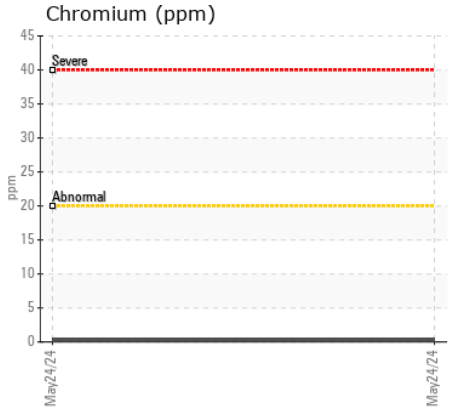
Lead (ppm)



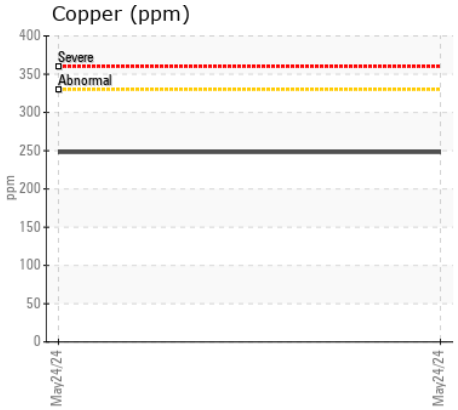
Aluminum (ppm)



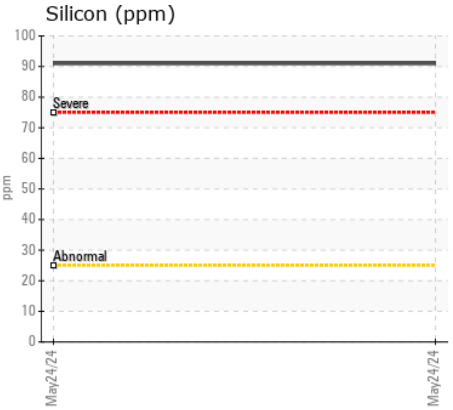
Chromium (ppm)



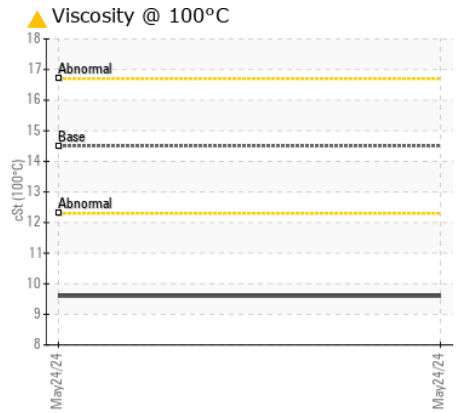
Copper (ppm)



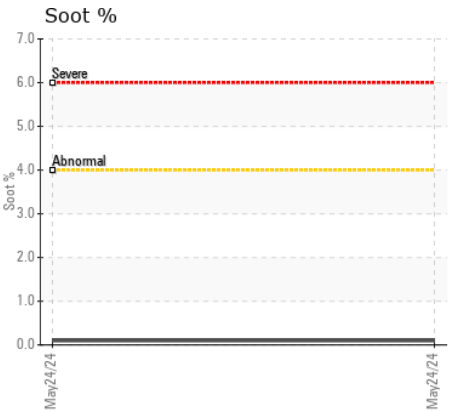
Silicon (ppm)



Viscosity @ 100°C



Soot %



ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0100707
Lab Number : 02638360
Unique Number : 5787522
Test Package : MOB 1 (Additional Tests: FuelDilution, KV40, PercentFuel, VI, Visual)

Received : 29 May 2024
Tested : 31 May 2024
Diagnosed : 31 May 2024 - 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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