



LIEBHERR

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
LIEBHERR 054895-1511
Component
Diesel Engine
Fluid
LIEBHERR MOTOROIL 5W30 (--- GAL)

RECOMMENDATION

Confirm the source of the lubricant being utilized for top-up/fill.
Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LH0289350	---	---
Sample Date		Client Info		21 May 2024	---	---
Machine Age	hrs	Client Info		870	---	---
Oil Age	hrs	Client Info		0	---	---
Filter Age	hrs	Client Info		0	---	---
Oil Changed		Client Info		Changed	---	---
Filter Changed		Client Info		N/A	---	---
Sample Status				NORMAL	---	---

WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185(m)	>100	30	---	---
Chromium	ppm	ASTM D5185(m)	>5	2	---	---
Nickel	ppm	ASTM D5185(m)	>5	<1	---	---
Titanium	ppm	ASTM D5185(m)		<1	---	---
Silver	ppm	ASTM D5185(m)	>3	0	---	---
Aluminum	ppm	ASTM D5185(m)	>15	12	---	---
Lead	ppm	ASTM D5185(m)	>30	4	---	---
Copper	ppm	ASTM D5185(m)	>125	59	---	---
Tin	ppm	ASTM D5185(m)	>5	1	---	---
Vanadium	ppm	ASTM D5185(m)		0	---	---
White Metal	scalar	Visual*	NONE	NONE	---	---
Yellow Metal	scalar	Visual*	NONE	NONE	---	---

CONTAMINATION

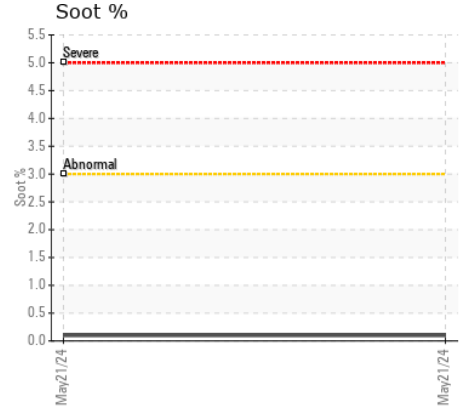
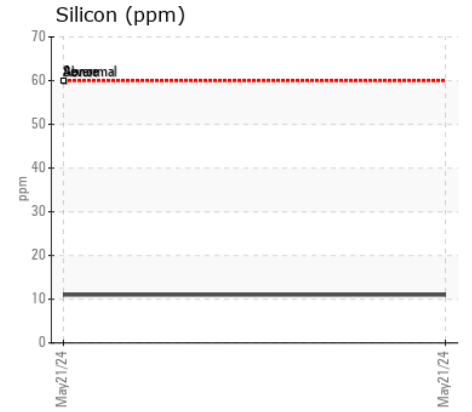
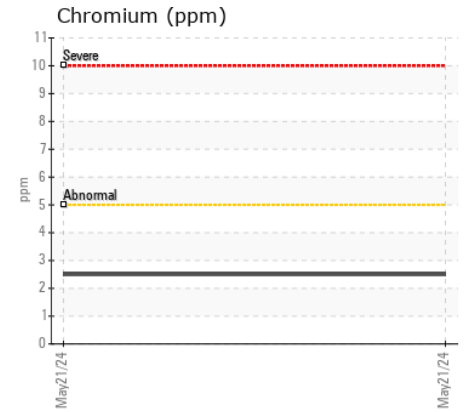
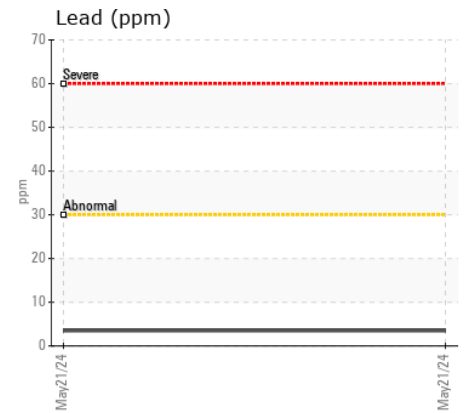
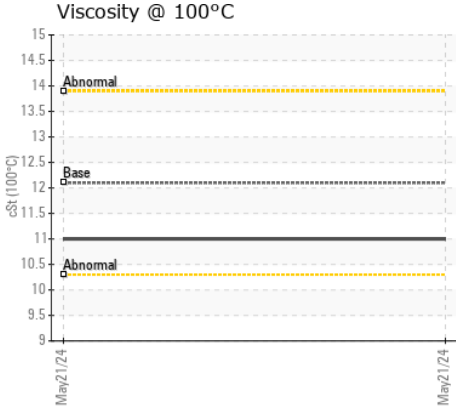
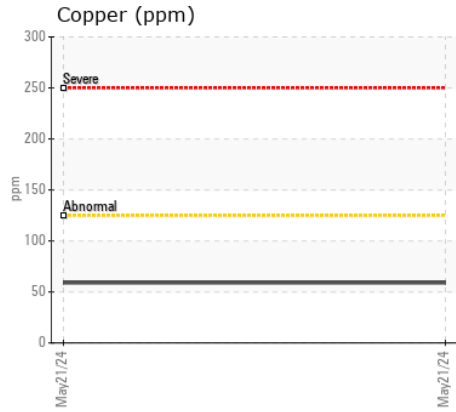
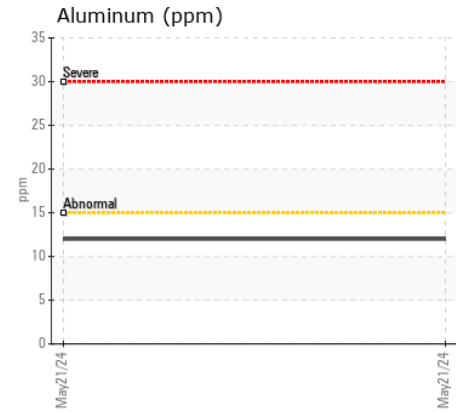
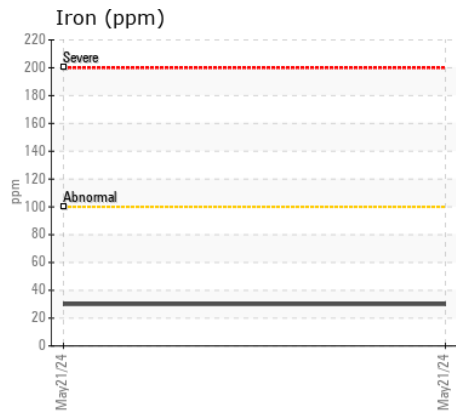
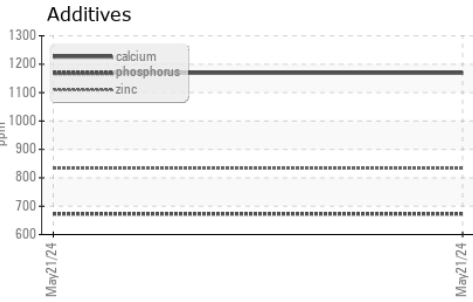
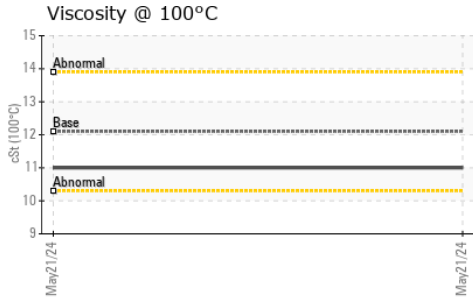
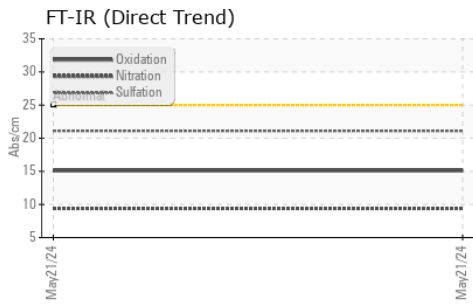
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>60	11	---	---
Potassium	ppm	ASTM D5185(m)	>20	4	---	---
Fuel		WC Method	>5	<1.0	---	---
Water		WC Method	>0.2	NEG	---	---
Glycol		WC Method		NEG	---	---
Soot %	%	ASTM D7844*	>3	0.1	---	---
Nitration	Abs/cm	ASTM D7624*	>20	9.4	---	---
Sulfation	Abs/.1mm	ASTM D7415*	>30	21.1	---	---
Silt	scalar	Visual*	NONE	NONE	---	---
Debris	scalar	Visual*	NONE	VLITE	---	---
Sand/Dirt	scalar	Visual*	NONE	NONE	---	---
Appearance	scalar	Visual*	NORML	NORML	---	---
Odor	scalar	Visual*	NORML	NORML	---	---
Emulsified Water	scalar	Visual*	>0.2	NEG	---	---

FLUID CONDITION

Additive levels indicate the addition of a different brand, or type of oil.
The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185(m)		4	---	---
Boron	ppm	ASTM D5185(m)	236	26	---	---
Barium	ppm	ASTM D5185(m)	0	3	---	---
Molybdenum	ppm	ASTM D5185(m)	0	7	---	---
Manganese	ppm	ASTM D5185(m)	<1	2	---	---
Magnesium	ppm	ASTM D5185(m)	25	759	---	---
Calcium	ppm	ASTM D5185(m)	4298	1169	---	---
Phosphorus	ppm	ASTM D5185(m)	1020	673	---	---
Zinc	ppm	ASTM D5185(m)	1164	833	---	---
Sulfur	ppm	ASTM D5185(m)	2460	2456	---	---
Oxidation	Abs/.1mm	ASTM D7414*	>25	15.1	---	---
Visc @ 100°C	cSt	ASTM D7279(m)	12.1	11.0	---	---



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : LH0289350 **Received** : 22 May 2024
Lab Number : 02636863 **Tested** : 22 May 2024
Unique Number : 5786025 **Diagnosed** : 22 May 2024 - Kevin Marson
Test Package : MOB 1 (Additional Tests: Visual)

12531992 ONTARIO INC.
 64 ELLIOTT ROAD
 STERLING, ON
 CA K0K 3E0
 Contact: Service Manager

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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F: