



LIEBHERR

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
LIEBHERR LH40C 155775-1527
Component
Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 40 (--- GAL)

RECOMMENDATION

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LH0289732	LH0270543	---
Sample Date		Client Info		13 May 2024	27 Feb 2024	---
Machine Age	hrs	Client Info		1026	447	---
Oil Age	hrs	Client Info		0	0	---
Filter Age	hrs	Client Info		0	0	---
Oil Changed		Client Info		Changed	Changed	---
Filter Changed		Client Info		N/A	N/A	---
Sample Status				NORMAL	NORMAL	---

WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185(m)	>100	5	9	---
Chromium	ppm	ASTM D5185(m)	>5	<1	<1	---
Nickel	ppm	ASTM D5185(m)	>5	0	0	---
Titanium	ppm	ASTM D5185(m)		0	0	---
Silver	ppm	ASTM D5185(m)	>3	0	0	---
Aluminum	ppm	ASTM D5185(m)	>15	1	3	---
Lead	ppm	ASTM D5185(m)	>30	6	6	---
Copper	ppm	ASTM D5185(m)	>125	201	98	---
Tin	ppm	ASTM D5185(m)	>5	<1	<1	---
Vanadium	ppm	ASTM D5185(m)		0	0	---
White Metal	scalar	Visual*	NONE	NONE	---	---
Yellow Metal	scalar	Visual*	NONE	NONE	---	---

CONTAMINATION

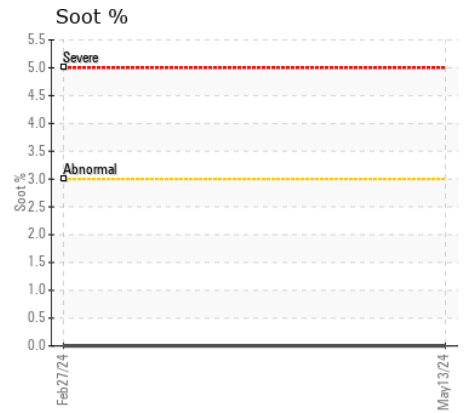
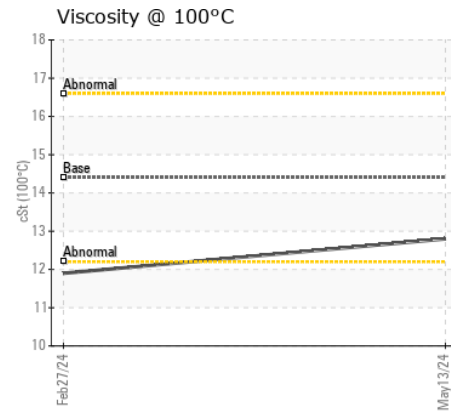
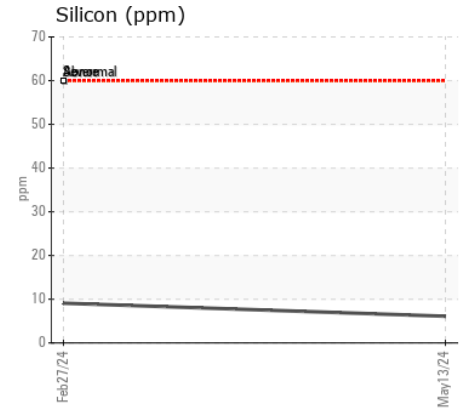
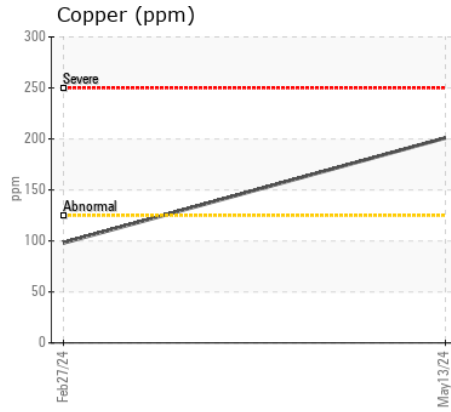
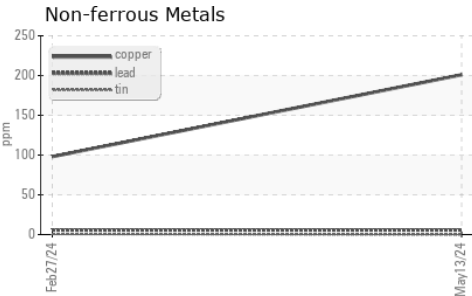
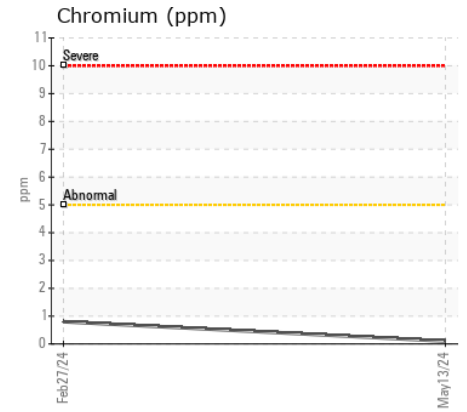
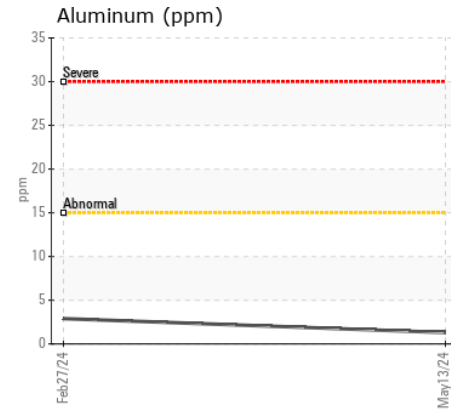
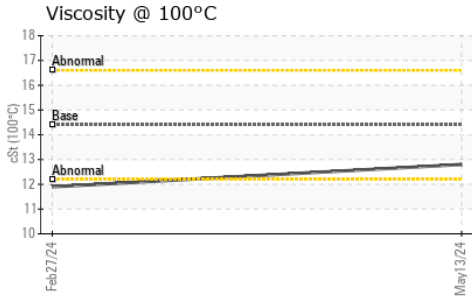
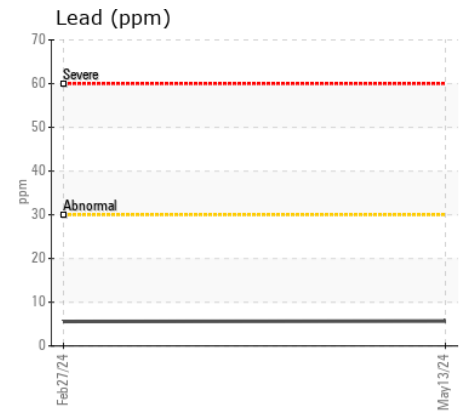
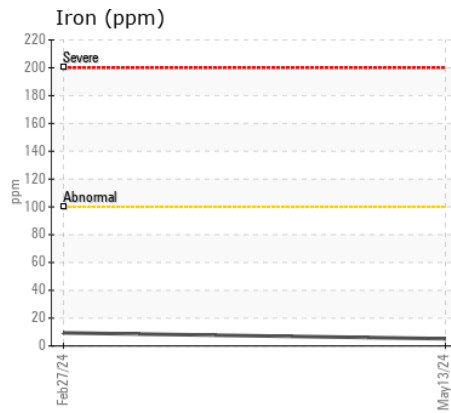
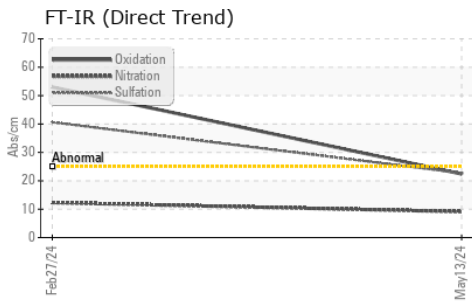
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>60	6	9	---
Potassium	ppm	ASTM D5185(m)	>20	<1	3	---
Fuel		WC Method	>5	<1.0	1.3	---
Water		WC Method	>0.2	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	ASTM D7844*	>3	0	0	---
Nitration	Abs/cm	ASTM D7624*	>20	9.1	12.3	---
Sulfation	Abs/.1mm	ASTM D7415*	>30	22.7	40.6	---
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	NORML	---
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	---

FLUID CONDITION

The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185(m)	>216	2	2	---
Boron	ppm	ASTM D5185(m)	250	11	99	---
Barium	ppm	ASTM D5185(m)	10	7	42	---
Molybdenum	ppm	ASTM D5185(m)	100	56	45	---
Manganese	ppm	ASTM D5185(m)		<1	<1	---
Magnesium	ppm	ASTM D5185(m)	450	958	893	---
Calcium	ppm	ASTM D5185(m)	3000	1110	1330	---
Phosphorus	ppm	ASTM D5185(m)	1150	926	656	---
Zinc	ppm	ASTM D5185(m)	1350	1128	778	---
Sulfur	ppm	ASTM D5185(m)	4250	2191	1905	---
Oxidation	Abs/.1mm	ASTM D7414*	>25	22.4	53.0	---
Visc @ 100°C	cSt	ASTM D7279(m)	14.4	12.8	11.9	---



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : LH0289732 **Received** : 14 May 2024
Lab Number : 02635203 **Tested** : 14 May 2024
Unique Number : 5776356 **Diagnosed** : 14 May 2024 - Kevin Marson
Test Package : MOB 1 (Additional Tests: Visual)

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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.