



LIEBHERR

OIL ANALYSIS REPORT

WEAR
CONTAMINATION
FLUID CONDITION

SEVERE

NORMAL

NORMAL



Machine Id
LIEBHERR LH30M 140292-1253

Component
Splitter Box

Fluid
{not provided} (--- GAL)

RECOMMENDATION

The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition. The fluid was not specified, however, a fluid match indicates that this fluid is SAE 80W90 Gear Oil. Please confirm the oil type and grade, and specify the brand of the oil on your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LH0278880	---	---
Sample Date		Client Info		21 Jan 2024	---	---
Machine Age	hrs	Client Info		1531	---	---
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				SEVERE	---	---

WEAR

Copper ppm levels are severe. Iron ppm levels are abnormal. Bearing and/or bushing wear is indicated. The low ferrous density (PQ) index indicates the wear metal levels are due to corrosion.

PQ		ASTM D8184*	>80	38	---	---
Iron	ppm	ASTM D5185(m)	>100	▲ 133	---	---
Chromium	ppm	ASTM D5185(m)	>5	<1	---	---
Nickel	ppm	ASTM D5185(m)	>5	<1	---	---
Titanium	ppm	ASTM D5185(m)		0	---	---
Silver	ppm	ASTM D5185(m)		0	---	---
Aluminum	ppm	ASTM D5185(m)	>20	1	---	---
Lead	ppm	ASTM D5185(m)	>30	2	---	---
Copper	ppm	ASTM D5185(m)	>20	◆ 49	---	---
Tin	ppm	ASTM D5185(m)	>10	3	---	---
Vanadium	ppm	ASTM D5185(m)		0	---	---
White Metal	scalar	Visual*	NONE	NONE	---	---
Yellow Metal	scalar	Visual*	NONE	NONE	---	---

CONTAMINATION

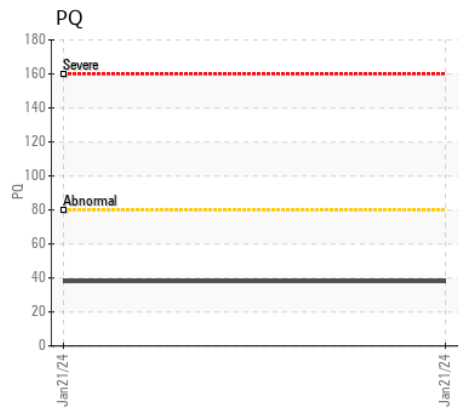
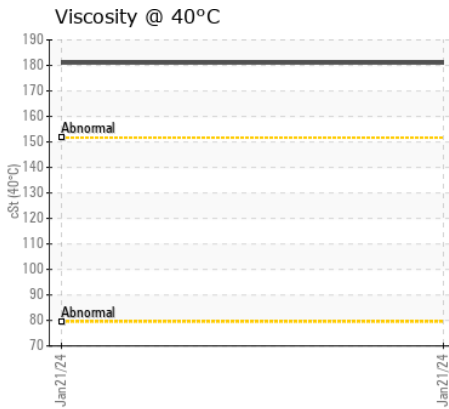
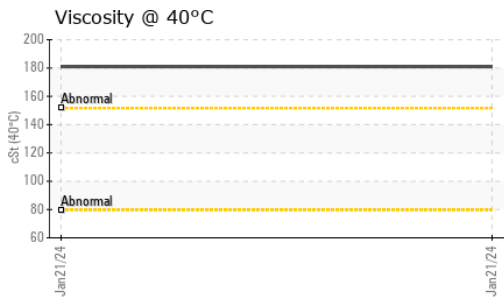
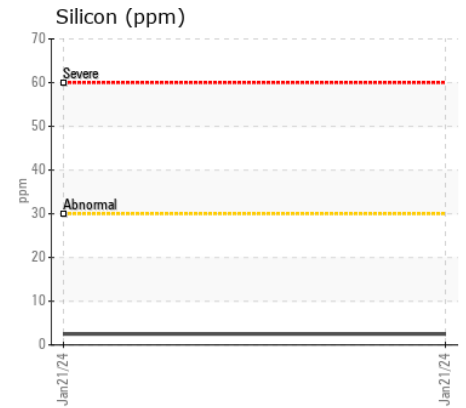
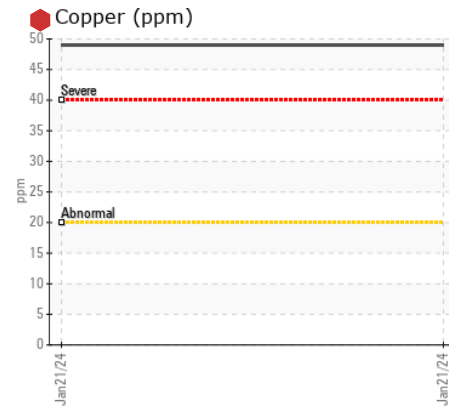
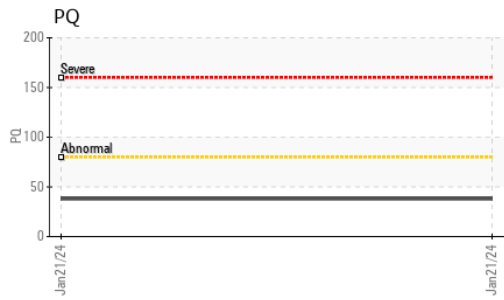
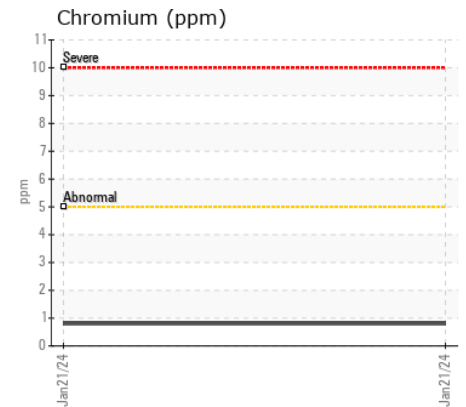
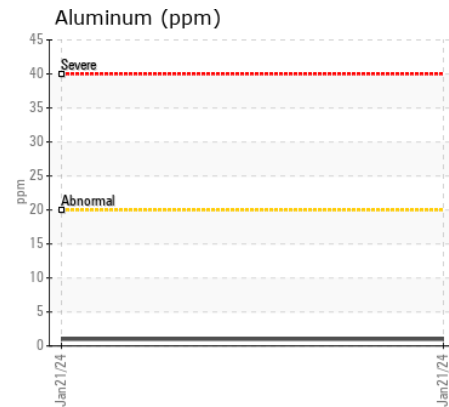
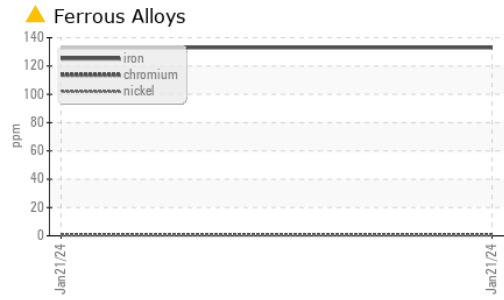
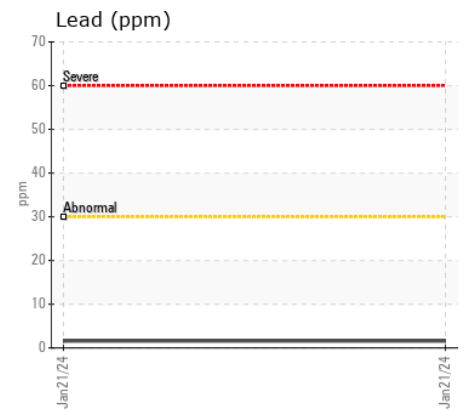
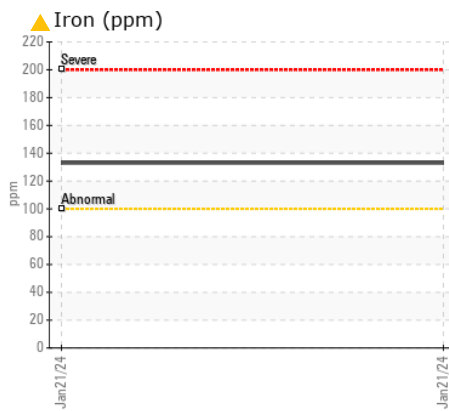
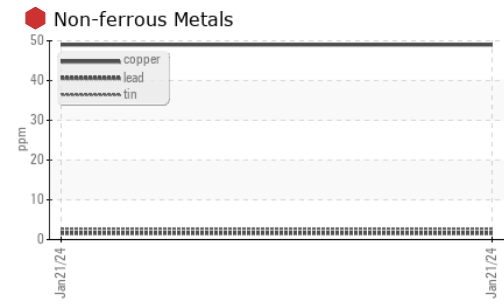
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>30	2	---	---
Potassium	ppm	ASTM D5185(m)	>20	3	---	---
Water		WC Method	>0.1	NEG	---	---
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*	>0.1	NEG	---	---

FLUID CONDITION

The oil is no longer serviceable as a result of the abnormal and/or severe wear.

Sodium	ppm	ASTM D5185(m)	>25	6	---	---
Boron	ppm	ASTM D5185(m)		8	---	---
Barium	ppm	ASTM D5185(m)		6	---	---
Molybdenum	ppm	ASTM D5185(m)		0	---	---
Manganese	ppm	ASTM D5185(m)		2	---	---
Magnesium	ppm	ASTM D5185(m)		1	---	---
Calcium	ppm	ASTM D5185(m)		33	---	---
Phosphorus	ppm	ASTM D5185(m)		2172	---	---
Zinc	ppm	ASTM D5185(m)		52	---	---
Sulfur	ppm	ASTM D5185(m)		24448	---	---
Visc @ 40°C	cSt	ASTM D7279(m)		181	---	---



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : LH0278880 **Received** : 22 Jan 2024
Lab Number : 02610399 **Diagnosed** : 23 Jan 2024
Unique Number : 5711485 **Diagnostician** : Kevin Marson
Test Package : MOB 1 (Additional Tests: PQ)

Markham Metals
 280 Hopkins Street
 Whitby, ON
 CA L1N 2B9
 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: