LIEBHERR — OIL ANALYSIS REPORT

WEAR	**SEVERE**
CONTAMINATION	**NORMAL**
FLUID CONDITION	**NORMAL**

Machine Id
LIEBHERR L566 074234-1758
Component
Rear Differential
Fluid
{not provided} (--- GAL)

RECOMMENDATION

We advise that you check for visible metal particles in the oil. 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 50 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		LH0155023	---	---
Sample Date		Client Info		29 Dec 2023	---	---
Machine Age	hrs	Client Info		1395	---	---
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 and tin and tin ppm levels are severe. Lead ppm levels are abnormal. Light concentration of visible metal present. Gear wear is indicated. Thrust washer and/or bearing/bushing wear is indicated.
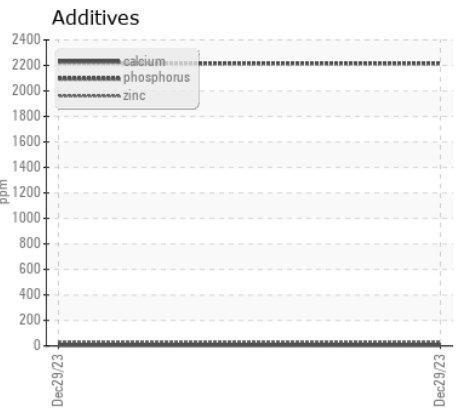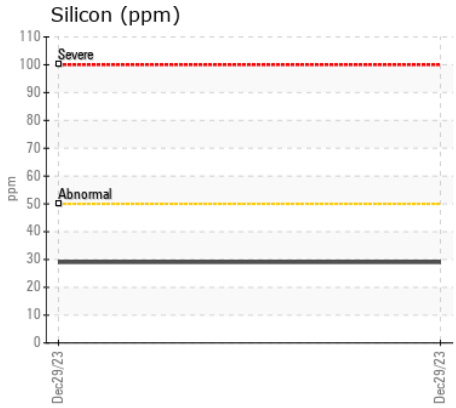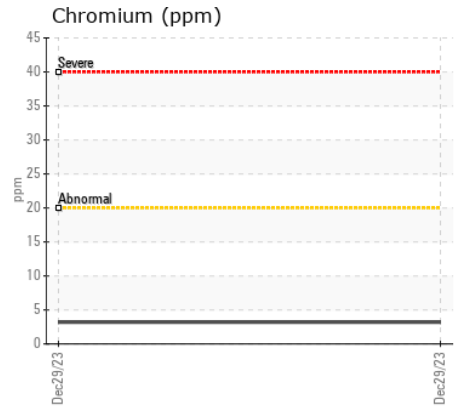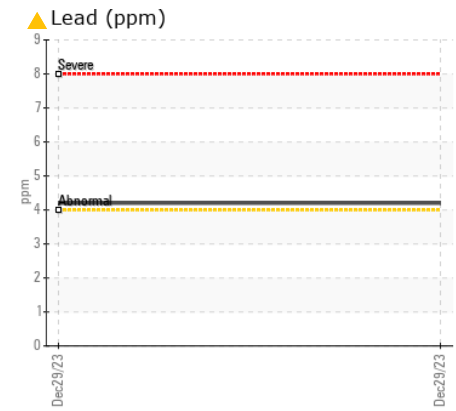
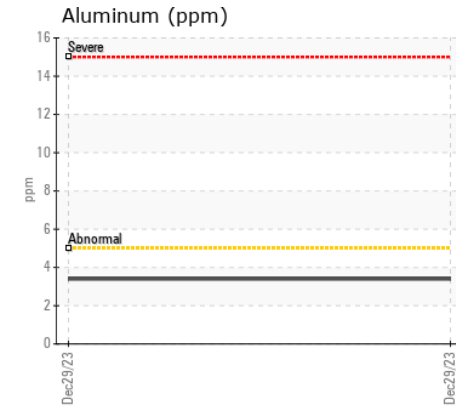| Test	UOM	Method	Limit/Abn	Current	History1	History2
Iron	ppm	ASTM D5185(m)	>1200	317	---	---
Chromium	ppm	ASTM D5185(m)	>20	3	---	---
Nickel	ppm	ASTM D5185(m)	>4	3	---	---
Titanium	ppm	ASTM D5185(m)		0	---	---
Silver	ppm	ASTM D5185(m)		0	---	---
Aluminum	ppm	ASTM D5185(m)	>5	3	---	---
Lead	ppm	ASTM D5185(m)	>4	⚠ 4	---	---
Copper	ppm	ASTM D5185(m)	>40	🔴 171	---	---
Tin	ppm	ASTM D5185(m)	>4	🔴 10	---	---
Vanadium	ppm	ASTM D5185(m)		0	---	---
White Metal	scalar	Visual*	NONE	⚠ LTMOD	---	---
Yellow Metal	scalar	Visual*	NONE	NONE	---	---

CONTAMINATION

There is no indication of any contamination in the oil.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Silicon	ppm	ASTM D5185(m)	>50	29	---	---
Potassium	ppm	ASTM D5185(m)	>20	<1	---	---
Water		WC Method	>.2	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*	>.2	NEG	---	---

FLUID CONDITION

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

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sodium	ppm	ASTM D5185(m)		10	---	---
Boron	ppm	ASTM D5185(m)		1	---	---
Barium	ppm	ASTM D5185(m)		0	---	---
Molybdenum	ppm	ASTM D5185(m)		0	---	---
Manganese	ppm	ASTM D5185(m)		50	---	---
Magnesium	ppm	ASTM D5185(m)		2	---	---
Calcium	ppm	ASTM D5185(m)		6	---	---
Phosphorus	ppm	ASTM D5185(m)		2216	---	---
Zinc	ppm	ASTM D5185(m)		35	---	---
Sulfur	ppm	ASTM D5185(m)		25167	---	---
Visc @ 40°C	cSt	ASTM D7279(m)		195	---	---

Non-ferrous Metals

copper
lead
tin

Viscosity @ 40°C

Abnormal
Abnormal

Iron (ppm)

Severe
Abnormal

Aluminum (ppm)

Severe
Abnormal

Copper (ppm)

Severe
Abnormal

Viscosity @ 40°C

Abnormal
Abnormal

Lead (ppm)

Severe
Abnormal

Chromium (ppm)

Severe
Abnormal

Silicon (ppm)

Severe
Abnormal

Additives

calcium
phosphorus
zinc
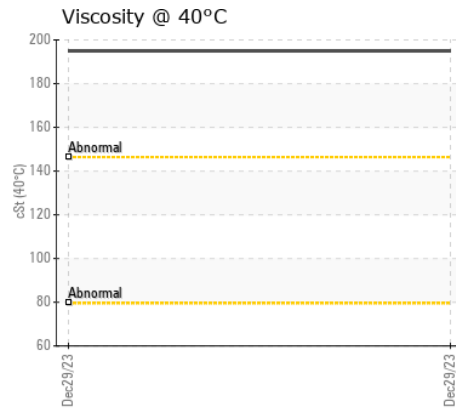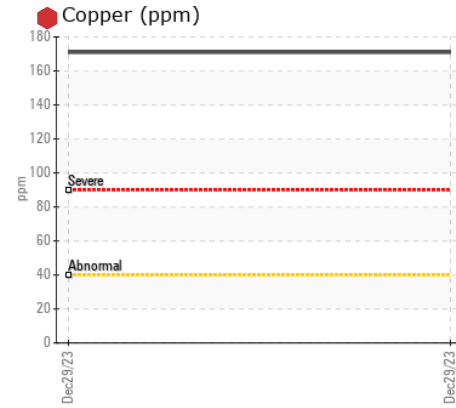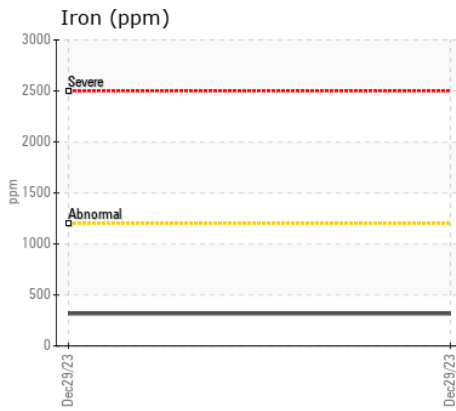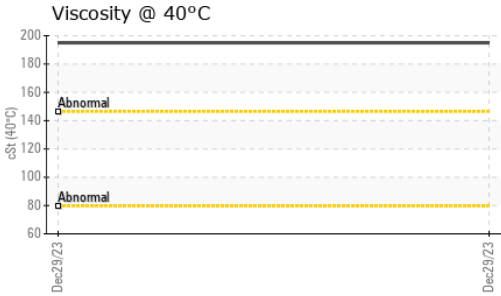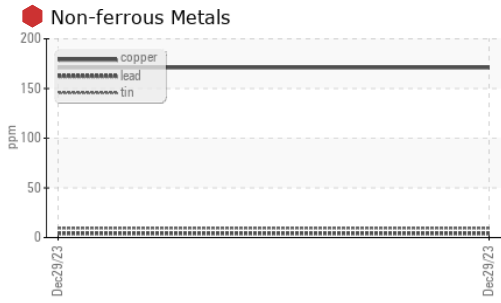
Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9

Sample No. : LH0155023   **Recieved** : 08 Jan 2024

Lab Number : 02607201   **Diagnosed** : 10 Jan 2024

Unique Number : 5708287   **Diagnostician** : Kevin Marson

Test Package : MOB 1 (Additional Tests: Bottom, BottomAnalysis, FilterPatch)

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.

ISO 17025:2017 Accredited Laboratory

Groupe Lebel Inc div Nouvelle

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Contact: Service Manager

T:

F: