



# LIEBHERR

## OIL ANALYSIS REPORT

WEAR	<b>ABNORMAL</b>
CONTAMINATION	<b>NORMAL</b>
FLUID CONDITION	<b>NORMAL</b>



Machine Id  
**LIEBHERR T60-9 022201-1709**  
Component  
**Rear Right Wheel Hub**  
Fluid  
**LIEBHERR GEAR MF 80W (--- GAL)**

### RECOMMENDATION

We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>LH0228246</b>	---	---
Sample Date		Client Info		<b>20 Feb 2024</b>	---	---
Machine Age	hrs	Client Info		<b>1045</b>	---	---
Oil Age	hrs	Client Info		<b>0</b>	---	---
Filter Age	hrs	Client Info		<b>0</b>	---	---
Oil Changed		Client Info		<b>Not Chngd</b>	---	---
Filter Changed		Client Info		<b>N/A</b>	---	---
Sample Status				<b>ABNORMAL</b>	---	---

### WEAR

Copper ppm levels are abnormal. Bearing and/or bushing wear is indicated.

Iron	ppm	ASTM D5185(m)	>500	<b>288</b>	---	---
Chromium	ppm	ASTM D5185(m)	>8	<b>2</b>	---	---
Nickel	ppm	ASTM D5185(m)	>5	<b>0</b>	---	---
Titanium	ppm	ASTM D5185(m)		<b>0</b>	---	---
Silver	ppm	ASTM D5185(m)		<b>0</b>	---	---
Aluminum	ppm	ASTM D5185(m)	>5	<b>1</b>	---	---
Lead	ppm	ASTM D5185(m)	>5	<b>7</b>	---	---
Copper	ppm	ASTM D5185(m)	>50	<b>▲ 280</b>	---	---
Tin	ppm	ASTM D5185(m)		<b>0</b>	---	---
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	---	---
White Metal	scalar	Visual*	NONE	<b>LIGHT</b>	---	---
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	---	---

### CONTAMINATION

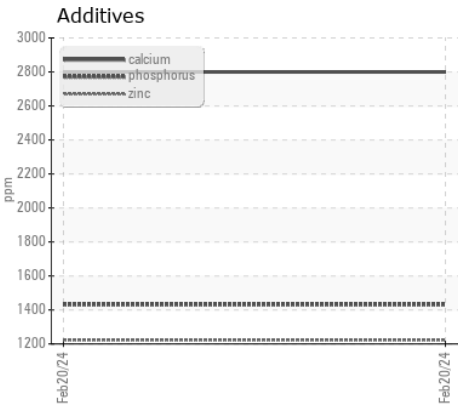
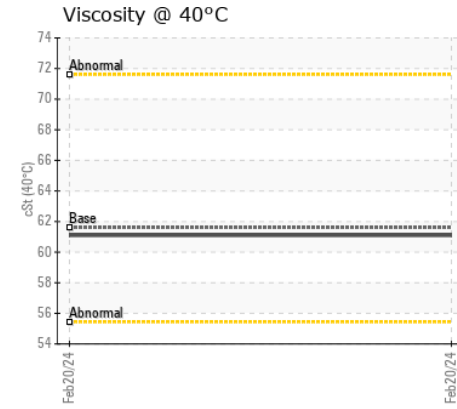
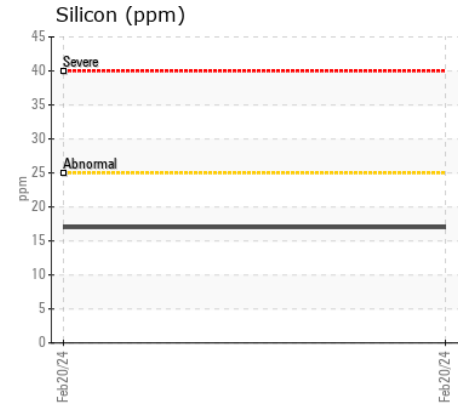
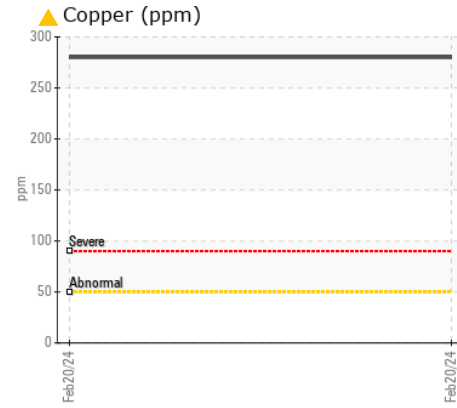
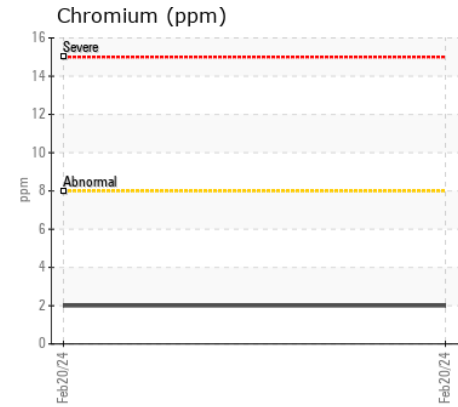
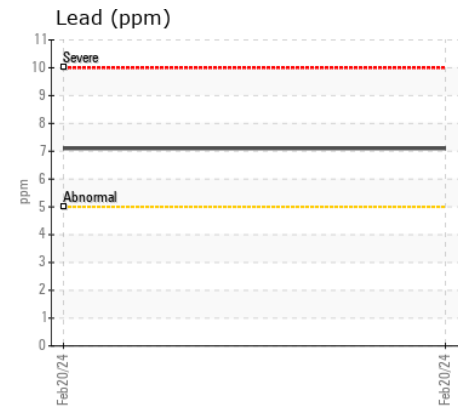
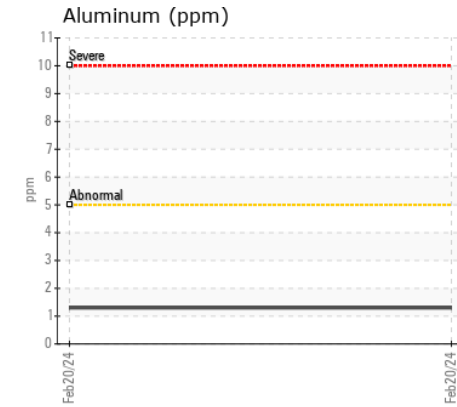
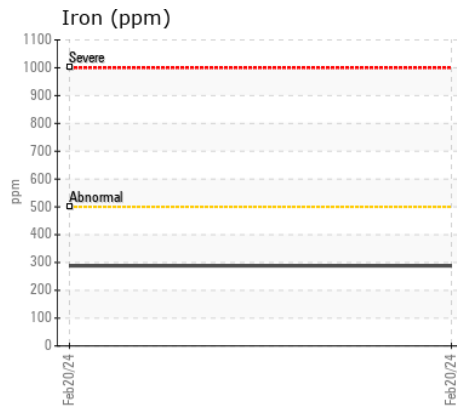
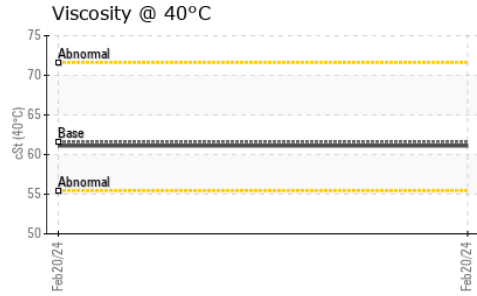
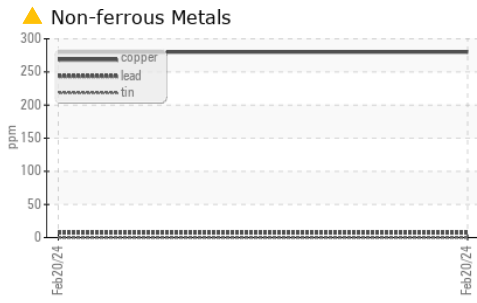
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	<b>17</b>	---	---
Potassium	ppm	ASTM D5185(m)	>20	<b>3</b>	---	---
Water		WC Method	>0.2	<b>NEG</b>	---	---
Silt	scalar	Visual*	NONE	<b>NONE</b>	---	---
Debris	scalar	Visual*	NONE	<b>NONE</b>	---	---
Sand/Dirt	scalar	Visual*	NONE	<b>NONE</b>	---	---
Appearance	scalar	Visual*	NORML	<b>NORML</b>	---	---
Odor	scalar	Visual*	NORML	<b>NORML</b>	---	---
Emulsified Water	scalar	Visual*	>0.2	<b>NEG</b>	---	---

### FLUID CONDITION

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

Sodium	ppm	ASTM D5185(m)		<b>2</b>	---	---
Boron	ppm	ASTM D5185(m)		<b>78</b>	---	---
Barium	ppm	ASTM D5185(m)		<b>2</b>	---	---
Molybdenum	ppm	ASTM D5185(m)		<b>0</b>	---	---
Manganese	ppm	ASTM D5185(m)		<b>3</b>	---	---
Magnesium	ppm	ASTM D5185(m)		<b>13</b>	---	---
Calcium	ppm	ASTM D5185(m)		<b>2800</b>	---	---
Phosphorus	ppm	ASTM D5185(m)		<b>1432</b>	---	---
Zinc	ppm	ASTM D5185(m)		<b>1223</b>	---	---
Sulfur	ppm	ASTM D5185(m)		<b>10443</b>	---	---
Visc @ 40°C	cSt	ASTM D7279(m)	61.6	<b>61.1</b>	---	---



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : LH0228246 **Received** : 22 Feb 2024  
**Lab Number** : **02617472** **Tested** : 22 Feb 2024  
**Unique Number** : 5734582 **Diagnosed** : 22 Feb 2024 - Kevin Marson  
**Test Package** : MOBCE ( Additional Tests: Visual )

**ECOWASTE INDUSTRIES**  
 4 SPRUCE ST  
 NEW WESTMINSTER, BC  
 CA V3L 5G6  
 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: