



# LIEBHERR

## OIL ANALYSIS REPORT



Area  
**(357696)**  
Machine Id  
**LIEBHERR LH50M 133969-1216**  
Component  
**Front Left Wheel Hub**  
Fluid  
**GEAR OIL SAE 90 (--- GAL)**

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

### 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 (GENERIC) GEAR OIL SAE 90. Please confirm.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>LH0286533</b>	LH0230832	---
Sample Date		Client Info		<b>04 Mar 2024</b>	19 Aug 2022	---
Machine Age	hrs	Client Info		<b>3503</b>	1605	---
Oil Age	hrs	Client Info		<b>0</b>	0	---
Filter Age	hrs	Client Info		<b>0</b>	0	---
Oil Changed		Client Info		<b>Changed</b>	Changed	---
Filter Changed		Client Info		<b>N/A</b>	N/A	---
Sample Status				<b>ABNORMAL</b>	ABNORMAL	---

### WEAR

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

Iron	ppm	ASTM D5185(m)	>325	<b>114</b>	38	---
Chromium	ppm	ASTM D5185(m)	>3	<b>&lt;1</b>	0	---
Nickel	ppm	ASTM D5185(m)	>2	<b>&lt;1</b>	<1	---
Titanium	ppm	ASTM D5185(m)		<b>0</b>	0	---
Silver	ppm	ASTM D5185(m)		<b>0</b>	0	---
Aluminum	ppm	ASTM D5185(m)	>10	<b>5</b>	2	---
Lead	ppm	ASTM D5185(m)	>4	<b>2</b>	2	---
Copper	ppm	ASTM D5185(m)	>75	<b>▲ 83</b>	<b>▲ 81</b>	---
Tin	ppm	ASTM D5185(m)	>3	<b>0</b>	0	---
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	---
White Metal	scalar	Visual*	NONE	<b>VLITE</b>	LIGHT	---
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	---

### CONTAMINATION

There is no indication of any contamination in the oil.

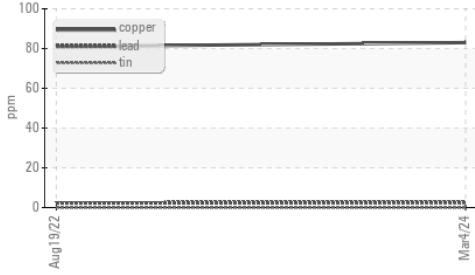
Silicon	ppm	ASTM D5185(m)	>75	<b>21</b>	4	---
Potassium	ppm	ASTM D5185(m)	>20	<b>3</b>	<1	---
Water		WC Method	>0.2	<b>NEG</b>	NEG	---
Silt	scalar	Visual*	NONE	<b>NONE</b>	NONE	---
Debris	scalar	Visual*	NONE	<b>NONE</b>	VLITE	---
Sand/Dirt	scalar	Visual*	NONE	<b>NONE</b>	NONE	---
Appearance	scalar	Visual*	NORML	<b>NORML</b>	NORML	---
Odor	scalar	Visual*	NORML	<b>NORML</b>	NORML	---
Emulsified Water	scalar	Visual*	>0.2	<b>NEG</b>	NEG	---

### FLUID CONDITION

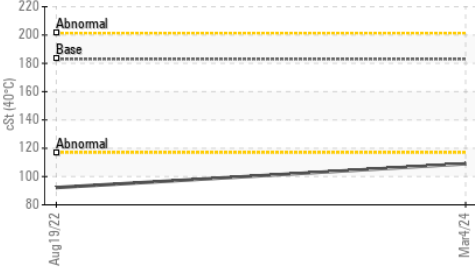
The oil is no longer serviceable as a result of the abnormal and/or severe wear.

Sodium	ppm	ASTM D5185(m)		<b>8</b>	7	---
Boron	ppm	ASTM D5185(m)	400	<b>140</b>	266	---
Barium	ppm	ASTM D5185(m)	200	<b>0</b>	0	---
Molybdenum	ppm	ASTM D5185(m)	12	<b>2</b>	<1	---
Manganese	ppm	ASTM D5185(m)		<b>5</b>	3	---
Magnesium	ppm	ASTM D5185(m)	12	<b>3</b>	2	---
Calcium	ppm	ASTM D5185(m)	150	<b>167</b>	50	---
Phosphorus	ppm	ASTM D5185(m)	1650	<b>1247</b>	1231	---
Zinc	ppm	ASTM D5185(m)	125	<b>115</b>	85	---
Sulfur	ppm	ASTM D5185(m)	22500	<b>19917</b>	21301	---
Visc @ 40°C	cSt	ASTM D7279(m)	183	<b>109</b>	92.2	---

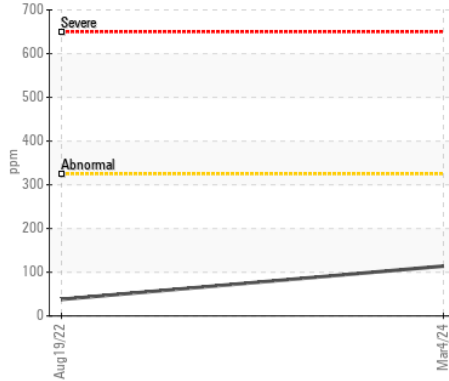
▲ Non-ferrous Metals



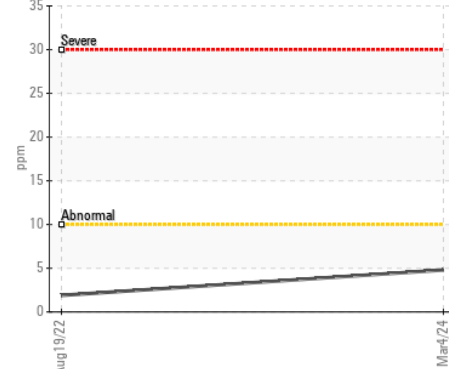
Viscosity @ 40°C



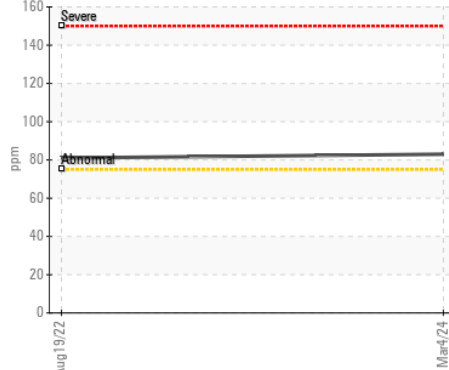
Iron (ppm)



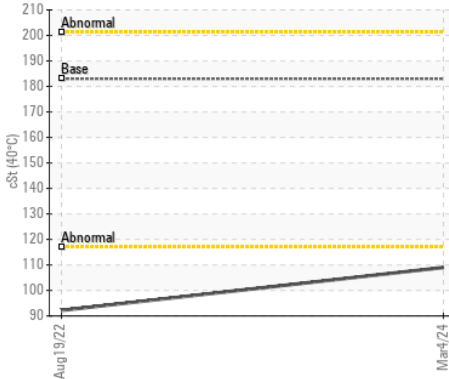
Aluminum (ppm)



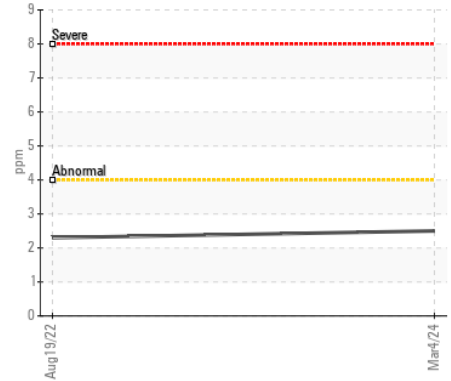
▲ Copper (ppm)



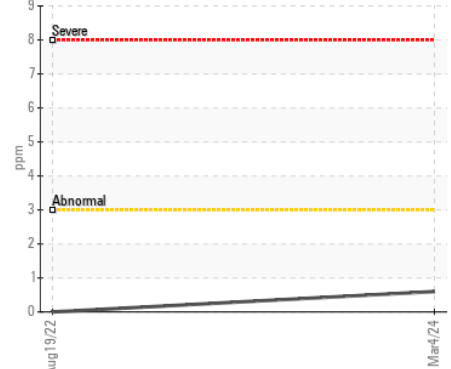
Viscosity @ 40°C



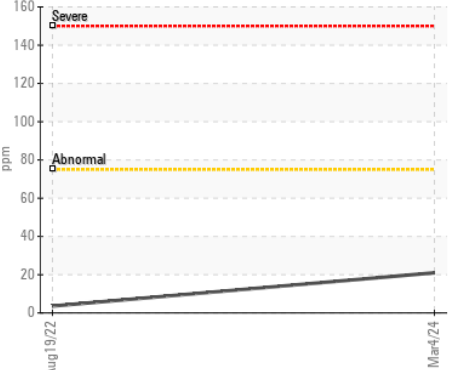
Lead (ppm)



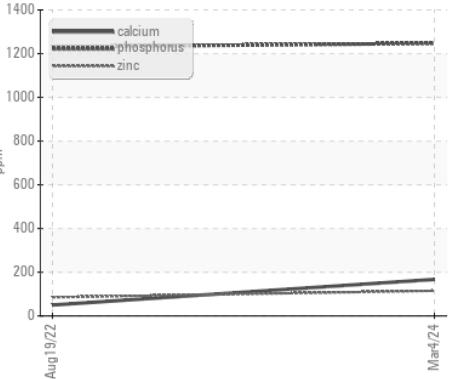
Chromium (ppm)



Silicon (ppm)



Additives



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : LH0286533 **Received** : 07 Mar 2024  
**Lab Number** : 02620649 **Tested** : 07 Mar 2024  
**Unique Number** : 5737759 **Diagnosed** : 07 Mar 2024 - Kevin Marson  
**Test Package** : MOB 1

**PRIESTLY DEMOLITION**  
 3200 LLOYDTOWN AURORA RD  
 KING, ON  
 CA L0G 1J0  
 Contact: Krystal Breedon  
 kbreedon@priestly.ca

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: