



# LIEBHERR

## OIL ANALYSIS REPORT

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



Machine Id  
**LIEBHERR L556 046000-1332**  
Component  
**Front Left Wheel Hub**  
Fluid  
**LIEBHERR GEAR BASIC 90 LS (3 LTR)**

### RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>LH0288099</b>	LH0148507	LH0148494
Sample Date		Client Info		<b>15 May 2024</b>	26 Oct 2020	12 Mar 2020
Machine Age	hrs	Client Info		<b>4994</b>	1926	968
Oil Age	hrs	Client Info		<b>0</b>	0	0
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>N/A</b>	N/A	None
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>500	<b>27</b>	69	343
Chromium	ppm	ASTM D5185(m)	>8	<b>0</b>	<1	3
Nickel	ppm	ASTM D5185(m)	>5	<b>&lt;1</b>	<1	2
Titanium	ppm	ASTM D5185(m)		<b>0</b>	0	<1
Silver	ppm	ASTM D5185(m)		<b>0</b>	<1	<1
Aluminum	ppm	ASTM D5185(m)	>5	<b>&lt;1</b>	<1	2
Lead	ppm	ASTM D5185(m)	>5	<b>0</b>	<1	2
Copper	ppm	ASTM D5185(m)	>50	<b>8</b>	24	62
Tin	ppm	ASTM D5185(m)		<b>0</b>	1	3
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	<1
White Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

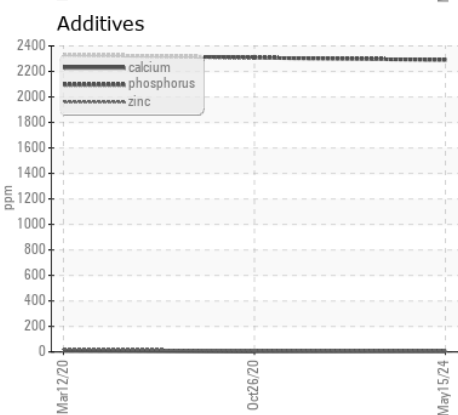
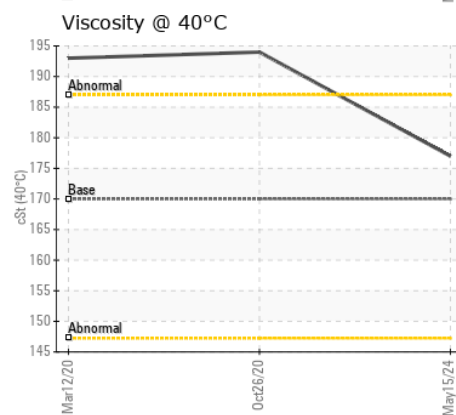
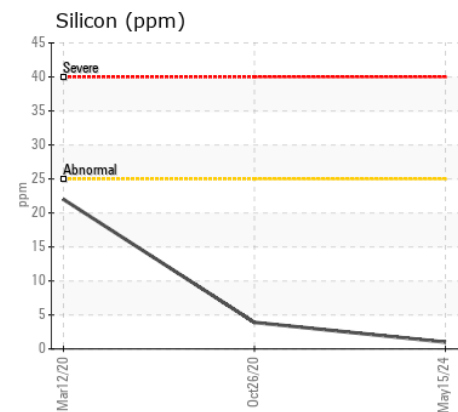
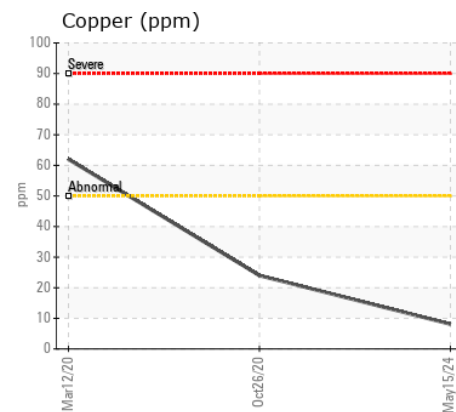
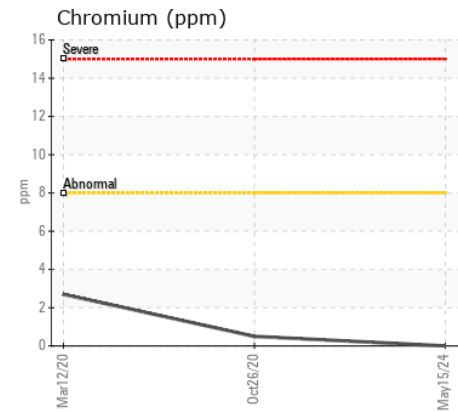
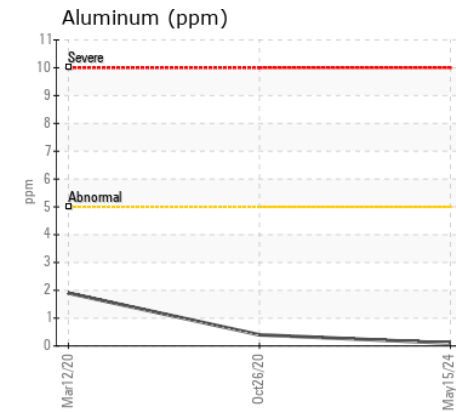
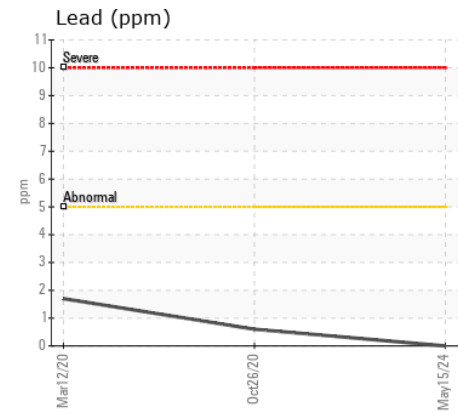
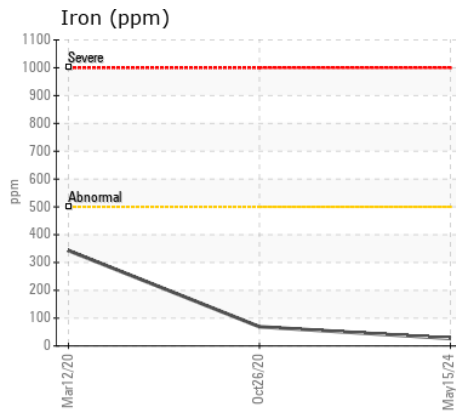
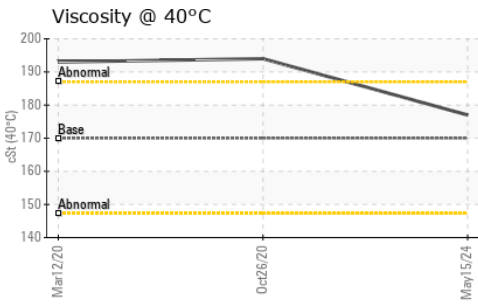
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	<b>1</b>	4	22
Potassium	ppm	ASTM D5185(m)	>20	<b>0</b>	<1	<1
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Silt	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	Visual*	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	Visual*	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	Visual*	>0.2	<b>NEG</b>	NEG	NEG

### FLUID CONDITION

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

Sodium	ppm	ASTM D5185(m)		<b>1</b>	4	7
Boron	ppm	ASTM D5185(m)	0	<b>&lt;1</b>	<1	2
Barium	ppm	ASTM D5185(m)	0	<b>0</b>	<1	1
Molybdenum	ppm	ASTM D5185(m)	0	<b>7</b>	2	7
Manganese	ppm	ASTM D5185(m)	0	<b>&lt;1</b>	4	32
Magnesium	ppm	ASTM D5185(m)	<1	<b>&lt;1</b>	<1	3
Calcium	ppm	ASTM D5185(m)	<1	<b>2</b>	3	10
Phosphorus	ppm	ASTM D5185(m)	2143	<b>2290</b>	2307	2332
Zinc	ppm	ASTM D5185(m)	<1	<b>8</b>	10	23
Sulfur	ppm	ASTM D5185(m)	23468	<b>25729</b>	26393	29298
Visc @ 40°C	cSt	ASTM D7279(m)	170	<b>177</b>	194	193



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : LH0288099 **Received** : 17 May 2024  
**Lab Number** : 02636414 **Tested** : 17 May 2024  
**Unique Number** : 5785576 **Diagnosed** : 17 May 2024 - Wes Davis  
**Test Package** : MOB 1

**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: