



# LIEBHERR

## OIL ANALYSIS REPORT

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



Machine Id  
**LIEBHERR LH60M 1217-94975**  
Component  
**Rear Right Wheel Hub**  
Fluid  
**GEAR OIL SAE 80W90 (--- GAL)**

### RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>LHMC165908</b>	LHMC119733	LHMC116821
Sample Date		Client Info		<b>10 Apr 2024</b>	13 Jun 2019	02 May 2019
Machine Age	hrs	Client Info		<b>8268</b>	5269	4802
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>	N/A	N/A
Filter Changed		Client Info		<b>N/A</b>	N/A	N/A
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>650	<b>44</b>	23	68
Chromium	ppm	ASTM D5185m	>4	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>4	<b>0</b>	2	0
Titanium	ppm	ASTM D5185m	>4	<b>0</b>	0	0
Silver	ppm	ASTM D5185m		<b>0</b>	<1	0
Aluminum	ppm	ASTM D5185m	>25	<b>1</b>	<1	1
Lead	ppm	ASTM D5185m	>4	<b>0</b>	0	1
Copper	ppm	ASTM D5185m	>60	<b>31</b>	19	87
Tin	ppm	ASTM D5185m	>4	<b>&lt;1</b>	0	0
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

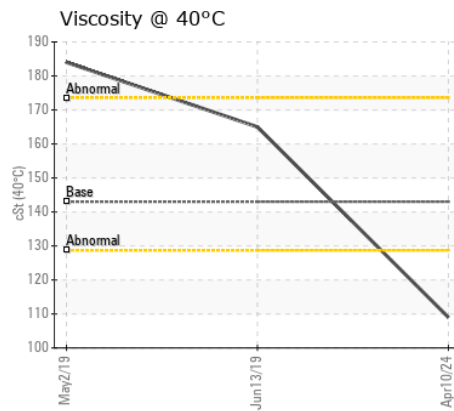
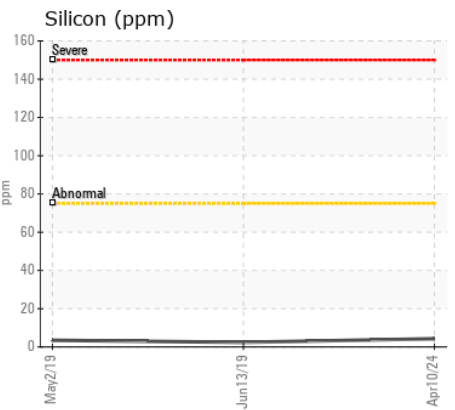
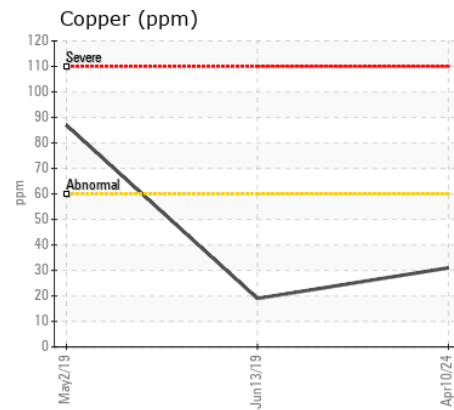
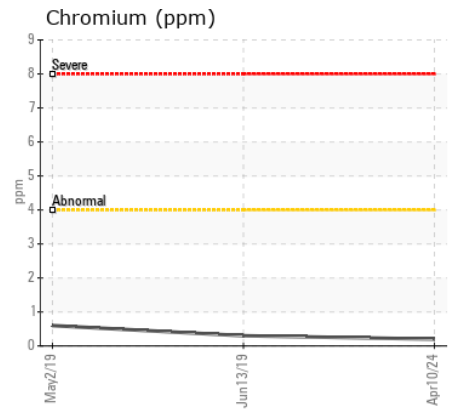
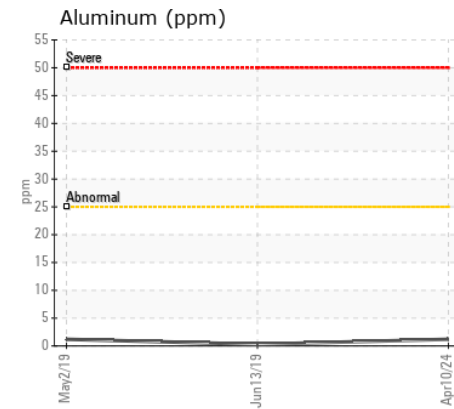
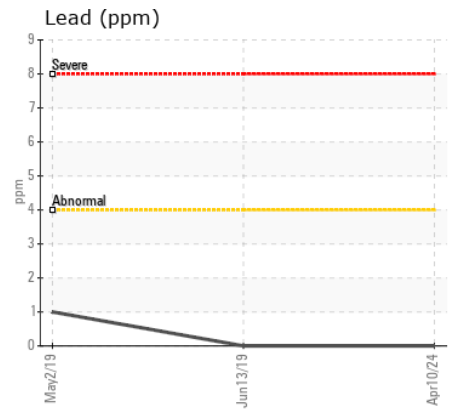
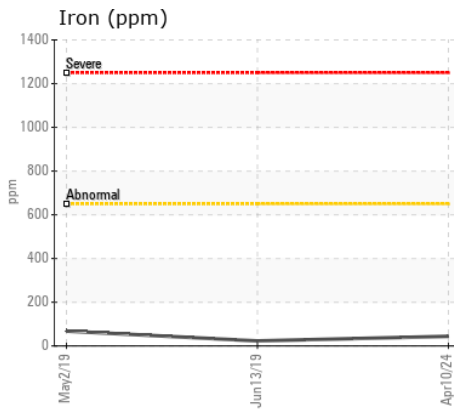
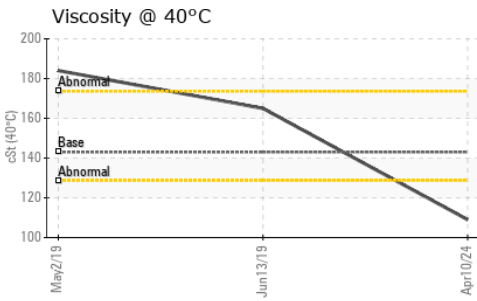
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>75	<b>4</b>	2	4
Potassium	ppm	ASTM D5185m	>20	<b>8</b>	4	0
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 D5185m	>170	<b>&lt;1</b>	1	3
Boron	ppm	ASTM D5185m	400	<b>151</b>	3	3
Barium	ppm	ASTM D5185m	200	<b>3</b>	36	301
Molybdenum	ppm	ASTM D5185m	12	<b>7</b>	1	0
Manganese	ppm	ASTM D5185m		<b>0</b>	<1	2
Magnesium	ppm	ASTM D5185m	12	<b>84</b>	8	0
Calcium	ppm	ASTM D5185m	150	<b>557</b>	20	1
Phosphorus	ppm	ASTM D5185m	1650	<b>1286</b>	408	1076
Zinc	ppm	ASTM D5185m	125	<b>300</b>	32	34
Sulfur	ppm	ASTM D5185m	22500	<b>19510</b>	11629	25464
Visc @ 40°C	cSt	ASTM D445	143	<b>109</b>	165	184



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : LHMC165908 **Received** : 16 Apr 2024  
**Lab Number** : 06151343 **Tested** : 19 Apr 2024  
**Unique Number** : 10981421 **Diagnosed** : 19 Apr 2024 - Sean Felton  
**Test Package** : MOB 1 ( Additional Tests: PQ )

AMERICAN STATE EQUIPMENT CO. (RENTAL TO ARCELOR MITTAL)  
 138 HWY 3217  
 LAPLACE, LA  
 US 70068  
 Contact: SERVICE MANAGER

To discuss this sample report, contact Customer Service at 1-800-237-1369.

\* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

T: (414)541-8700

F: