



# LIEBHERR

## OIL ANALYSIS REPORT

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



Machine Id  
**LIEBHERR A934C 065595-1007**  
Component  
**Front Left Wheel Hub**  
Fluid  
**GEAR OIL SAE 80W90 (--- GAL)**

### RECOMMENDATION

We recommend that you drain the oil from the component if this has not already been done. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>LH0267141</b>	---	---
Sample Date		Client Info		<b>18 Apr 2024</b>	---	---
Machine Age	hrs	Client Info		<b>55376</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>Not Chngd</b>	---	---
Sample Status				<b>SEVERE</b>	---	---

### WEAR

Gear wear is indicated.

Iron	ppm	ASTM D5185m	>500	<b>▲ 1592</b>	---	---
Chromium	ppm	ASTM D5185m	>4	<b>▲ 10</b>	---	---
Nickel	ppm	ASTM D5185m	>3	<b>3</b>	---	---
Titanium	ppm	ASTM D5185m		<b>1</b>	---	---
Silver	ppm	ASTM D5185m		<b>&lt;1</b>	---	---
Aluminum	ppm	ASTM D5185m	>15	<b>5</b>	---	---
Lead	ppm	ASTM D5185m	>4	<b>2</b>	---	---
Copper	ppm	ASTM D5185m	>100	<b>56</b>	---	---
Tin	ppm	ASTM D5185m	>3	<b>&lt;1</b>	---	---
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	---	---
White Metal	scalar	*Visual	NONE	<b>NONE</b>	---	---
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	---	---

### CONTAMINATION

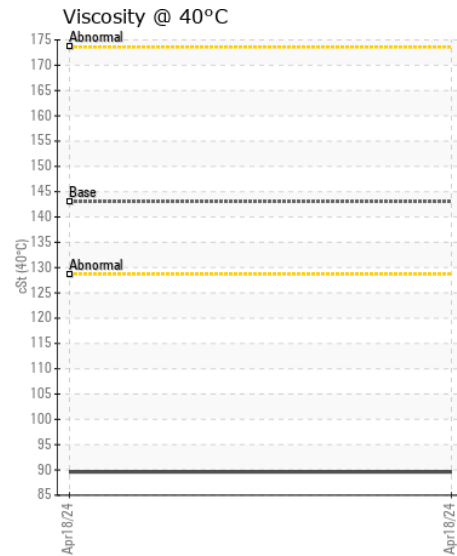
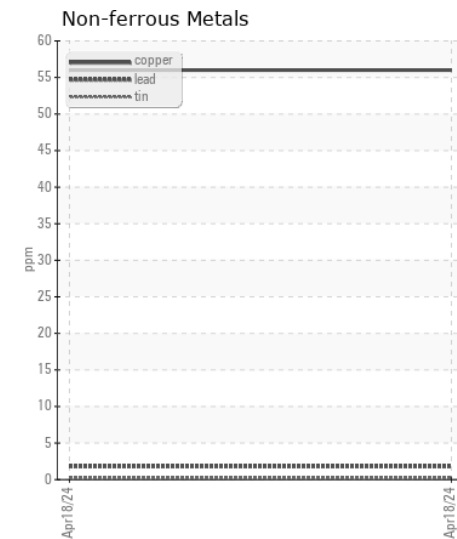
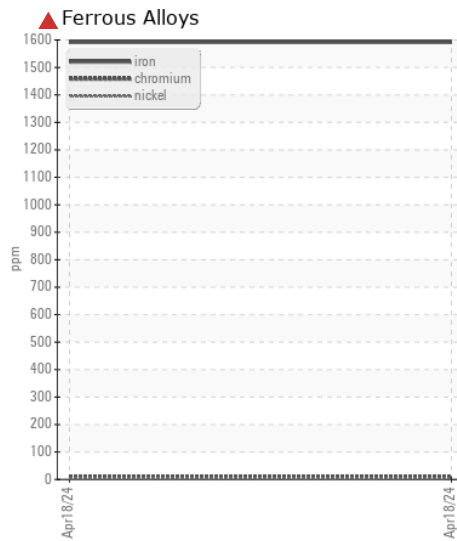
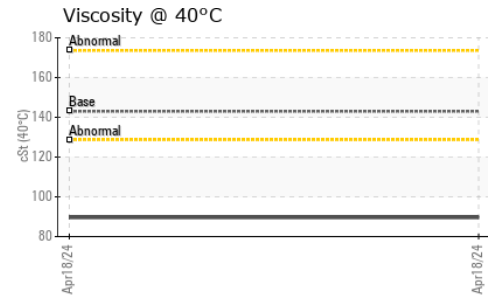
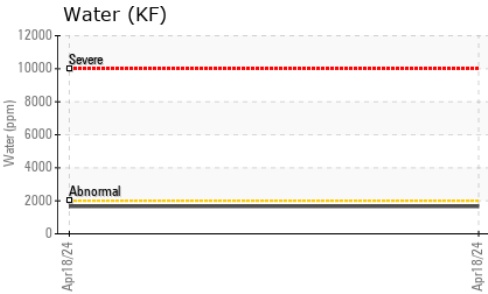
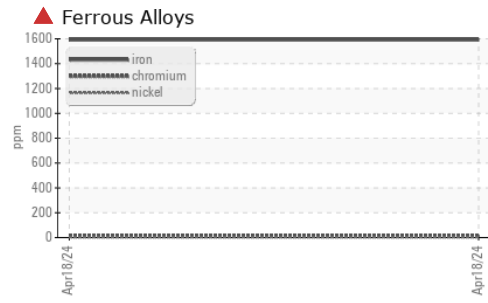
The water content is negligible. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>65	<b>31</b>	---	---
Potassium	ppm	ASTM D5185m	>20	<b>10</b>	---	---
Water	%	ASTM D6304	>0.2	<b>0.166</b>	---	---
ppm Water	ppm	ASTM D6304	>2000	<b>1660</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>0.2%</b>	---	---

### FLUID CONDITION

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

Sodium	ppm	ASTM D5185m	>170	<b>8</b>	---	---
Boron	ppm	ASTM D5185m	400	<b>15</b>	---	---
Barium	ppm	ASTM D5185m	200	<b>2</b>	---	---
Molybdenum	ppm	ASTM D5185m	12	<b>3</b>	---	---
Manganese	ppm	ASTM D5185m		<b>17</b>	---	---
Magnesium	ppm	ASTM D5185m	12	<b>8</b>	---	---
Calcium	ppm	ASTM D5185m	150	<b>696</b>	---	---
Phosphorus	ppm	ASTM D5185m	1650	<b>1311</b>	---	---
Zinc	ppm	ASTM D5185m	125	<b>321</b>	---	---
Sulfur	ppm	ASTM D5185m	22500	<b>20514</b>	---	---
Visc @ 40°C	cSt	ASTM D445	143	<b>89.6</b>	---	---



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : LH0267141 **Received** : 24 Apr 2024  
**Lab Number** : 06159920 **Tested** : 25 Apr 2024  
**Unique Number** : 10995343 **Diagnosed** : 26 Apr 2024 - Sean Felton  
**Test Package** : CONST ( Additional Tests: KF )

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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)