



# LIEBHERR

## OIL ANALYSIS REPORT

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



Machine Id  
**LIEBHERR LH50M 107256-1216**  
Component  
**Hydraulic System**  
Fluid  
**{not provided} (--- GAL)**

### RECOMMENDATION

Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>LH06176058</b>	LH05509505	LH05170370
Sample Date		Client Info		<b>09 May 2024</b>	03 Apr 2022	28 Jan 2021
Machine Age	hrs	Client Info		<b>3993</b>	2974	1987
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>Not Changd</b>	Not Changd	Not Changd
Filter Changed		Client Info		<b>N/A</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	ABNORMAL	ABNORMAL

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>60	<b>12</b>	12	12
Chromium	ppm	ASTM D5185m	>40	<b>1</b>	2	2
Nickel	ppm	ASTM D5185m	>10	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m		<b>0</b>	0	0
Silver	ppm	ASTM D5185m		<b>0</b>	<1	<1
Aluminum	ppm	ASTM D5185m	>5	<b>0</b>	<1	0
Lead	ppm	ASTM D5185m	>5	<b>1</b>	<1	<1
Copper	ppm	ASTM D5185m	>15	<b>4</b>	9	6
Tin	ppm	ASTM D5185m	>5	<b>0</b>	<1	<1
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

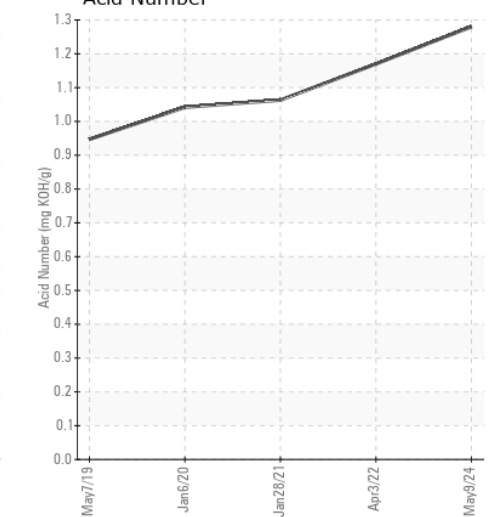
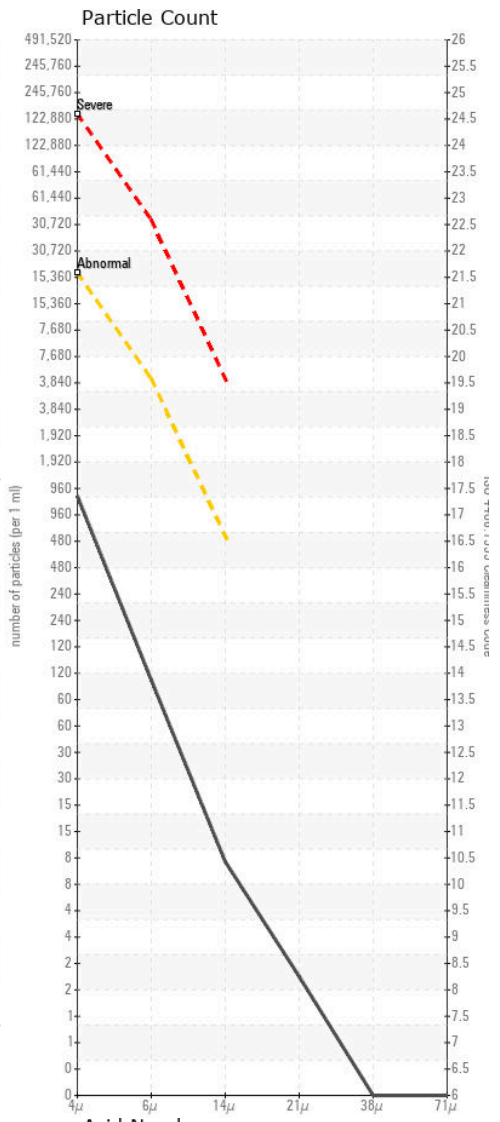
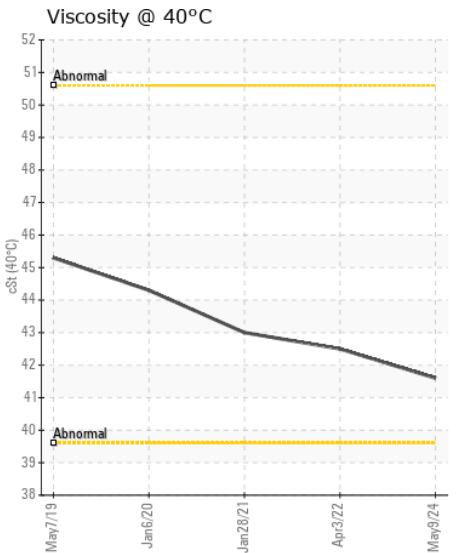
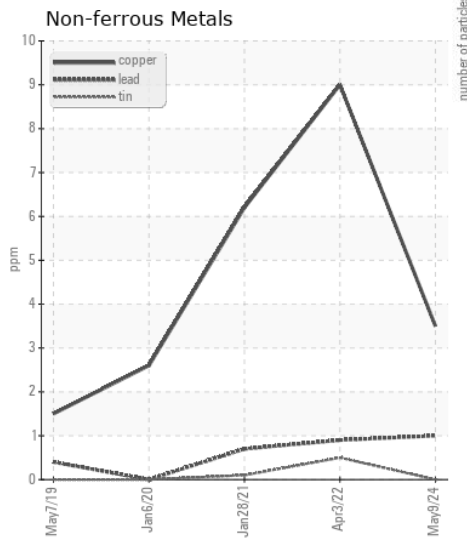
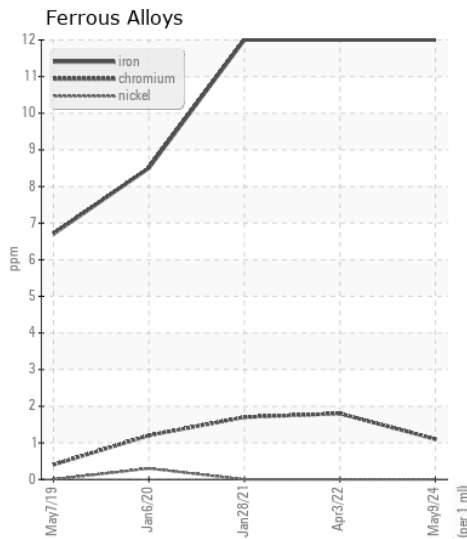
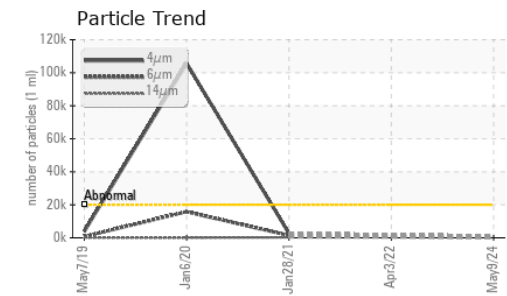
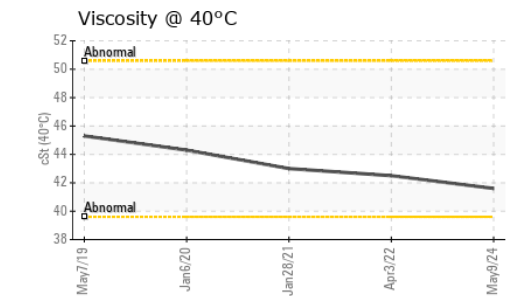
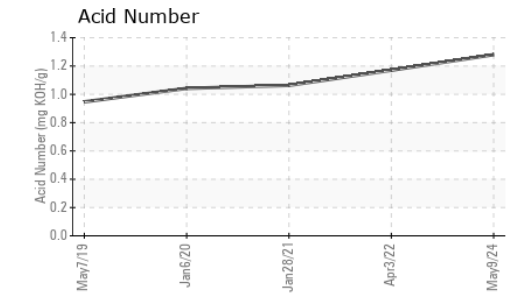
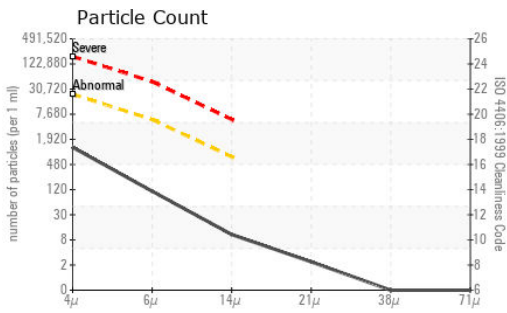
The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

Silicon	ppm	ASTM D5185m	>15	<b>2</b>	1	1
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	0	1
Water		WC Method	>0.1	<b>NEG</b>	NEG	NEG
Particles >4µm		ASTM D7647	>20000	<b>1080</b>	---	2621
Particles >6µm		ASTM D7647	>5000	<b>97</b>	---	1428
Particles >14µm		ASTM D7647	>640	<b>9</b>	---	243
Particles >21µm		ASTM D7647	>160	<b>2</b>	---	82
Particles >38µm		ASTM D7647	>40	<b>0</b>	---	13
Particles >71µm		ASTM D7647	>10	<b>0</b>	---	1
Oil Cleanliness		ISO 4406 (c)	>21/19/16	<b>17/14/10</b>	---	19/18/15
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	▲ MODER	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	>0.1	<b>NEG</b>	▲ 0.2%	0.2%

### FLUID CONDITION

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<b>3</b>	0	1
Boron	ppm	ASTM D5185m		<b>0</b>	0	1
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>0</b>	<1	<1
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>8</b>	6	10
Calcium	ppm	ASTM D5185m		<b>918</b>	1186	1173
Phosphorus	ppm	ASTM D5185m		<b>660</b>	647	642
Zinc	ppm	ASTM D5185m		<b>781</b>	693	761
Sulfur	ppm	ASTM D5185m		<b>3117</b>	2610	2623
Acid Number (AN)	mg KOH/g	ASTM D8045		<b>1.28</b>	1.17	1.063
Visc @ 40°C	cSt	ASTM D445		<b>41.6</b>	42.5	43.0



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : LH06176058  
**Lab Number** : 06176058  
**Unique Number** : 11022111  
**Test Package** : MOB 2

**Received** : 10 May 2024  
**Tested** : 14 May 2024  
**Diagnosed** : 14 May 2024 - Wes Davis

**DIEHL AND NUEMAIER**  
 5466 NORWAY GROVE SCHOOL RD  
 DE FOREST, WI  
 US 53532

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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)