



# LIEBHERR

## OIL ANALYSIS REPORT

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



Machine Id  
**LIEBHERR LH30M 1253-123497**  
Component  
**Hydraulic System**  
Fluid  
**{not provided} (--- GAL)**

### RECOMMENDATION

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>LH0273447</b>	LH0272910	LH0258293
Sample Date		Client Info		<b>20 Jun 2024</b>	11 Jan 2024	16 Aug 2023
Machine Age	hrs	Client Info		<b>5603</b>	4554	3960
Oil Age	hrs	Client Info		<b>500</b>	0	0
Filter Age	hrs	Client Info		<b>500</b>	0	0
Oil Changed		Client Info		<b>Not Changed</b>	N/A	Not Changed
Filter Changed		Client Info		<b>Not Changed</b>	N/A	Changed
Sample Status				<b>SEVERE</b>	SEVERE	SEVERE

### WEAR

The iron level is severe.

Iron	ppm	ASTM D5185m	>50	<b>▲ 151</b>	▲ 129	▲ 125
Chromium	ppm	ASTM D5185m	>5	<b>1</b>	2	1
Nickel	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m		<b>0</b>	0	0
Silver	ppm	ASTM D5185m		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>2	<b>&lt;1</b>	1	<1
Lead	ppm	ASTM D5185m	>4	<b>1</b>	3	3
Copper	ppm	ASTM D5185m	>10	<b>10</b>	12	11
Tin	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Vanadium	ppm	ASTM D5185m		<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

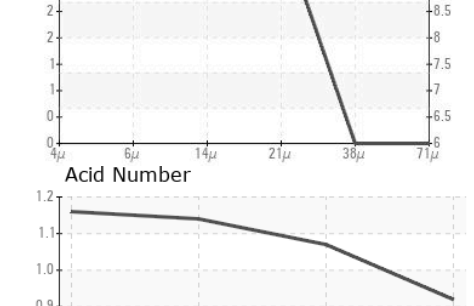
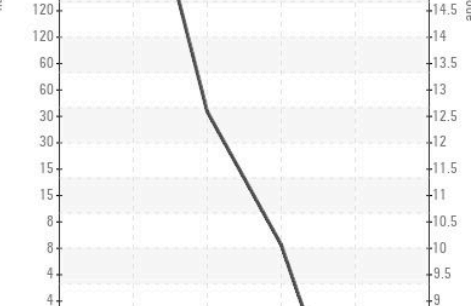
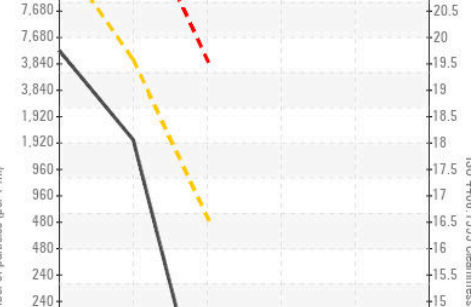
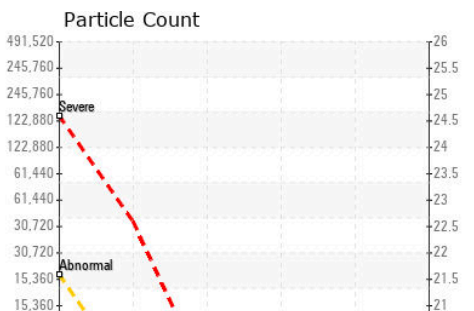
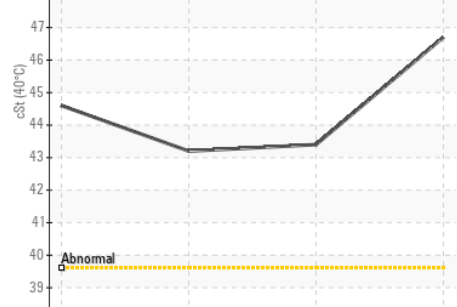
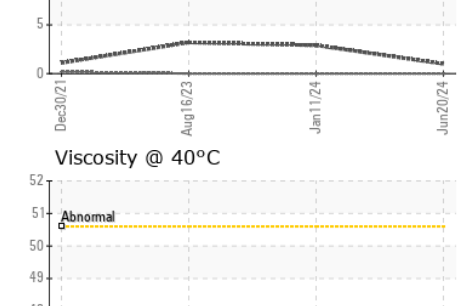
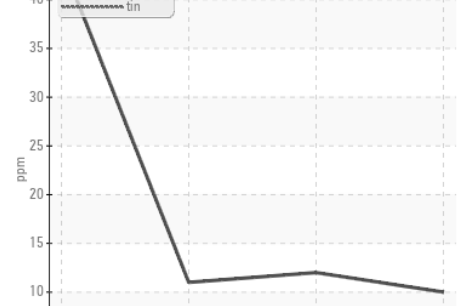
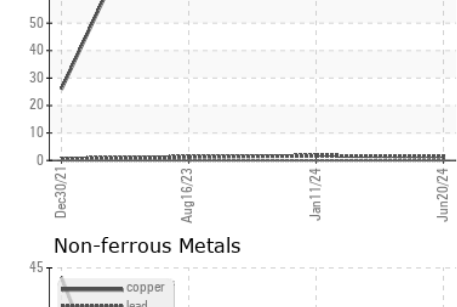
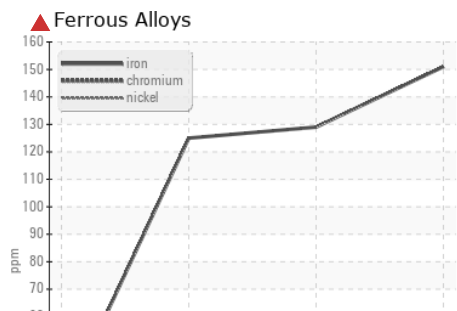
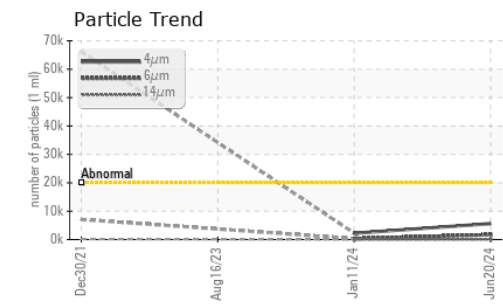
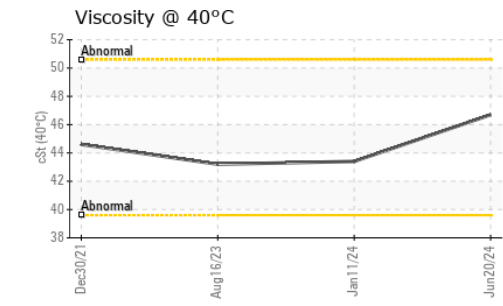
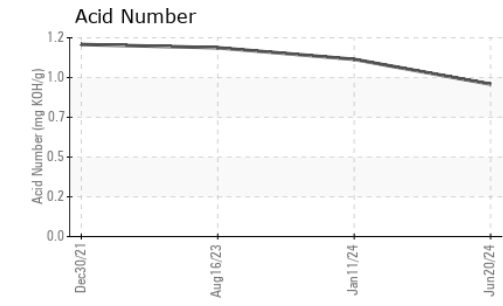
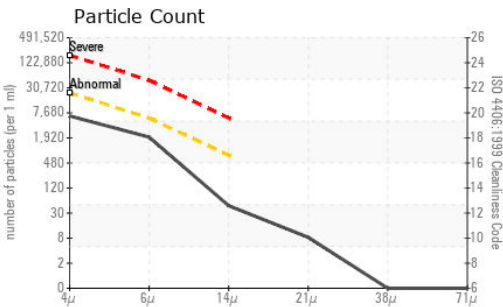
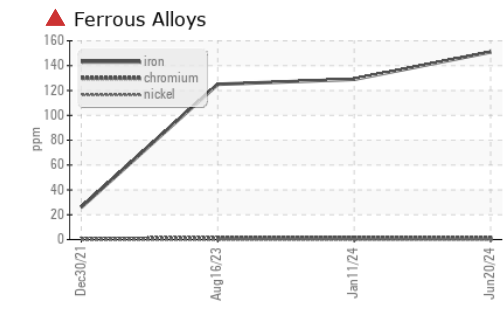
There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable.

Silicon	ppm	ASTM D5185m	>17	<b>2</b>	3	3
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	2	2
Water		WC Method	>0.1	<b>NEG</b>	NEG	NEG
Particles >4µm		ASTM D7647	>20000	<b>5632</b>	2224	---
Particles >6µm		ASTM D7647	>5000	<b>1749</b>	329	---
Particles >14µm		ASTM D7647	>640	<b>40</b>	20	---
Particles >21µm		ASTM D7647	>160	<b>7</b>	5	---
Particles >38µm		ASTM D7647	>40	<b>0</b>	1	---
Particles >71µm		ASTM D7647	>10	<b>0</b>	0	---
Oil Cleanliness		ISO 4406 (c)	>21/19/16	<b>20/18/12</b>	18/16/11	---
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	▲ MODER
Debris	scalar	*Visual	NONE	<b>LIGHT</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	>0.1	<b>NEG</b>	NEG	NEG

### FLUID CONDITION

The AN level is acceptable for this fluid.

Sodium	ppm	ASTM D5185m		<b>3</b>	1	3
Boron	ppm	ASTM D5185m		<b>0</b>	0	0
Barium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>0</b>	<1	0
Manganese	ppm	ASTM D5185m		<b>2</b>	1	2
Magnesium	ppm	ASTM D5185m		<b>24</b>	32	5
Calcium	ppm	ASTM D5185m		<b>564</b>	858	870
Phosphorus	ppm	ASTM D5185m		<b>442</b>	502	527
Zinc	ppm	ASTM D5185m		<b>532</b>	613	673
Sulfur	ppm	ASTM D5185m		<b>3986</b>	4789	5623
Acid Number (AN)	mg KOH/g	ASTM D8045		<b>0.92</b>	1.07	1.14
Visc @ 40°C	cSt	ASTM D445		<b>46.7</b>	43.4	43.2



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : LH0273447  
**Lab Number** : 06222287  
**Unique Number** : 11100484  
**Test Package** : CONST  
**Received** : 27 Jun 2024  
**Tested** : 02 Jul 2024  
**Diagnosed** : 02 Jul 2024 - Don Baldrige

**SPARTAN RECYCLING**  
 3071 HOWARD ST  
 SPARTANBURG, SC  
 US 29303  
 Contact: SERVICE MANAGER

Certificate L2367  
 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)