



# LIEBHERR

## OIL ANALYSIS REPORT



Area  
**[MACHINE 3130]**  
 Machine Id  
**LIEBHERR LH30M 153769-1253**  
 Component  
**Hydraulic System**  
 Fluid  
**SAE 10W (--- GAL)**

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

### RECOMMENDATION

Check seals and/or filters for points of contaminant entry. The oil change at the time of sampling has been noted. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. We recommend you service the filters on this component. Resample in 30-45 days to monitor this situation.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>LH0278111</b>	LH0278094	---
Sample Date		Client Info		<b>10 May 2024</b>	27 Mar 2024	---
Machine Age	hrs	Client Info		<b>3000</b>	0	---
Oil Age	hrs	Client Info		<b>0</b>	0	---
Filter Age	hrs	Client Info		<b>0</b>	0	---
Oil Changed		Client Info		<b>Changed</b>	Changed	---
Filter Changed		Client Info		<b>Not Chngd</b>	Changed	---
Sample Status				<b>SEVERE</b>	NORMAL	---

### WEAR

Iron ppm levels are severe. Aluminum and chromium ppm levels are marginal. The low ferrous density (PQ) index indicates the wear metal levels are due to corrosion.

PQ		ASTM D8184*	>40	<b>33</b>	---	---
Iron	ppm	ASTM D5185(m)	>50	<b>▲ 106</b>	2	---
Chromium	ppm	ASTM D5185(m)	>5	<b>▲ 5</b>	0	---
Nickel	ppm	ASTM D5185(m)	>2	<b>0</b>	0	---
Titanium	ppm	ASTM D5185(m)		<b>2</b>	0	---
Silver	ppm	ASTM D5185(m)		<b>0</b>	0	---
Aluminum	ppm	ASTM D5185(m)	>2	<b>▲ 2</b>	1	---
Lead	ppm	ASTM D5185(m)	>4	<b>0</b>	0	---
Copper	ppm	ASTM D5185(m)	>10	<b>7</b>	<1	---
Tin	ppm	ASTM D5185(m)	>2	<b>0</b>	0	---
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	---
White Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	---
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	---

### CONTAMINATION

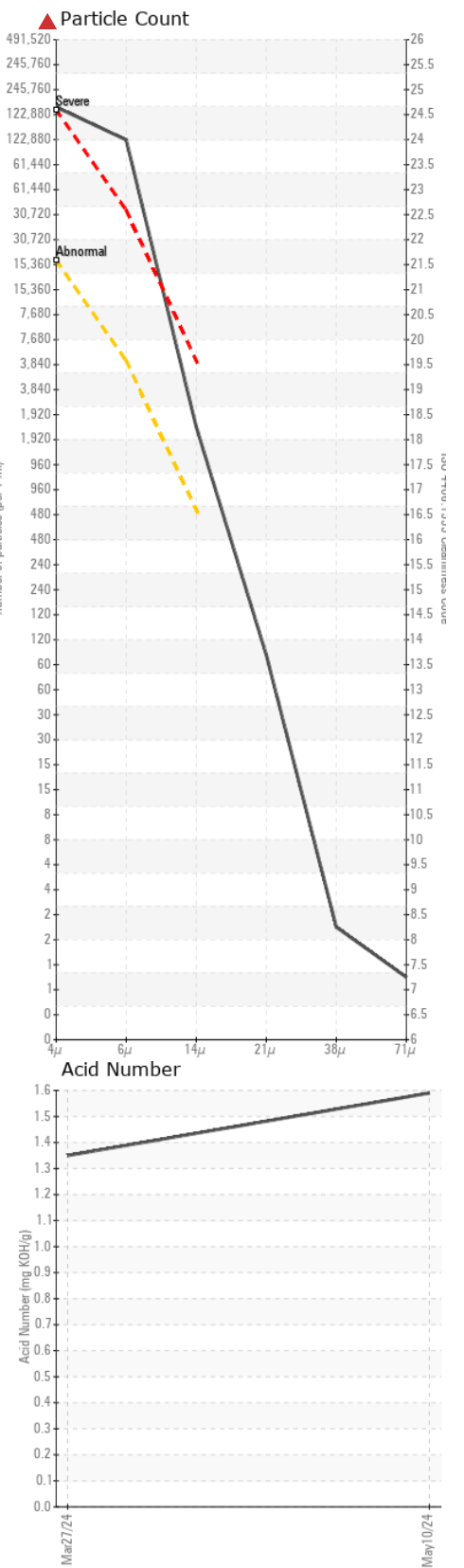
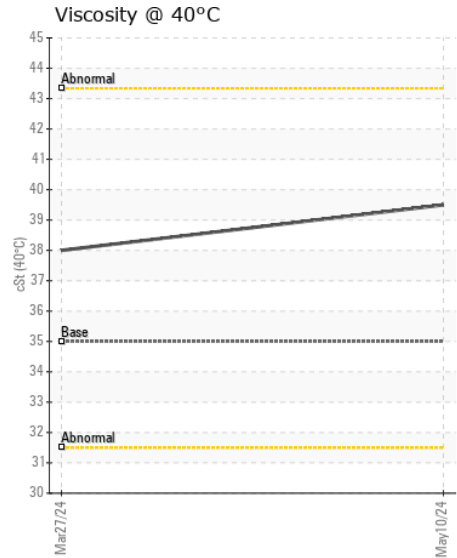
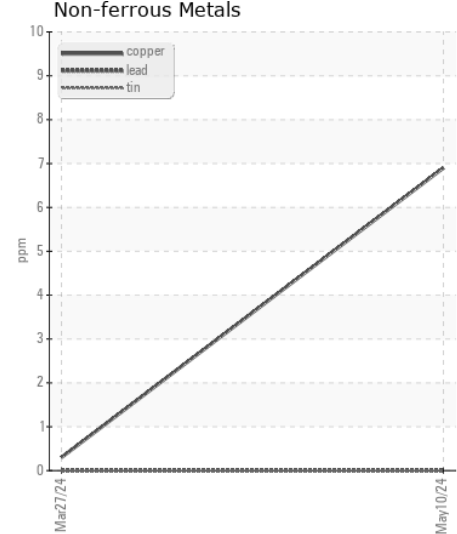
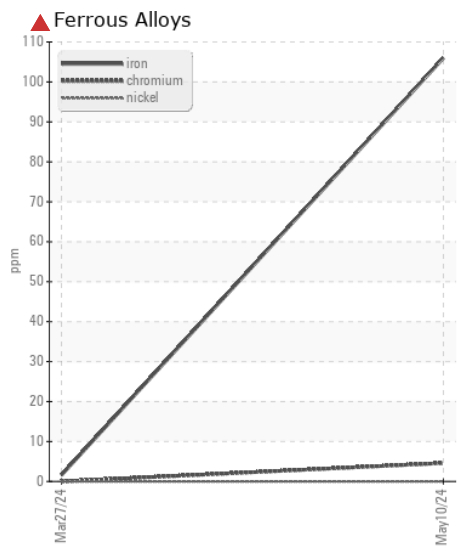
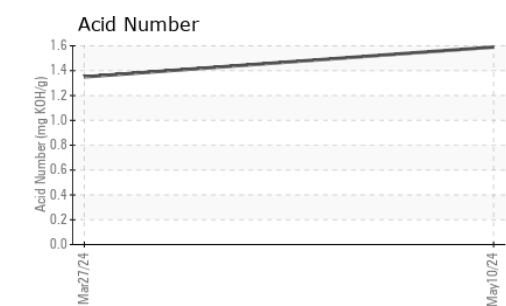
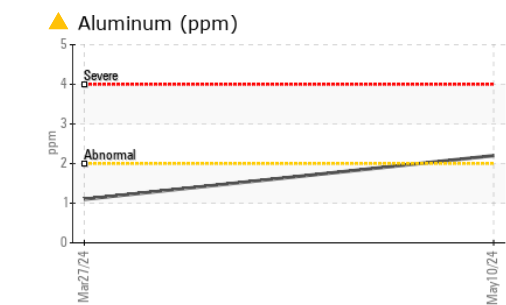
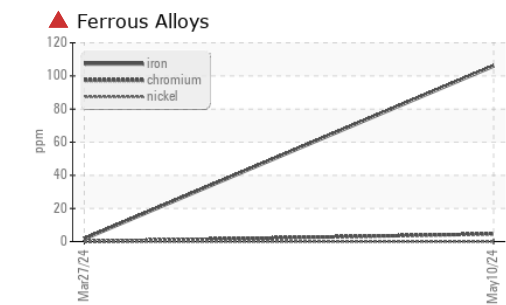
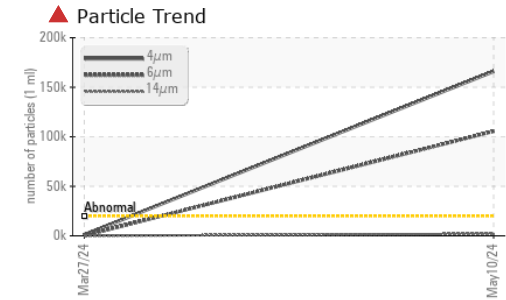
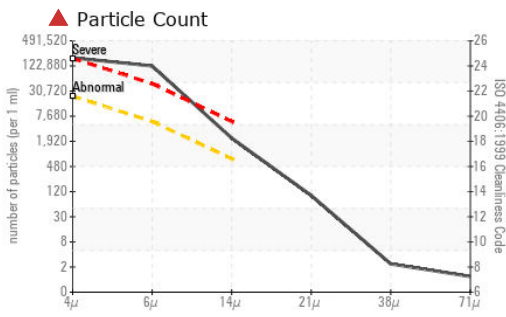
There is a high amount of silt (particulates < 14 microns in size) present in the oil.

Silicon	ppm	ASTM D5185(m)	>17	<b>12</b>	9	---
Potassium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	<1	---
Water		WC Method	>0.1	<b>NEG</b>	NEG	---
Particles >4µm		ASTM D7647	>20000	<b>▲ 166003</b>	1094	---
Particles >6µm		ASTM D7647	>5000	<b>▲ 105665</b>	173	---
Particles >14µm		ASTM D7647	>640	<b>▲ 2006</b>	21	---
Particles >21µm		ASTM D7647	>160	<b>86</b>	7	---
Particles >38µm		ASTM D7647	>40	<b>2</b>	1	---
Particles >71µm		ASTM D7647	>10	<b>1</b>	1	---
Oil Cleanliness		ISO 4406 (c)	>21/19/16	<b>▲ 25/24/18</b>	17/15/12	---
Silt	scalar	Visual*	NONE	<b>VLITE</b>	NONE	---
Debris	scalar	Visual*	NONE	<b>NONE</b>	NONE	---
Sand/Dirt	scalar	Visual*	NONE	<b>NONE</b>	NONE	---
Appearance	scalar	Visual*	NORML	<b>NORML</b>	NORML	---
Odor	scalar	Visual*	NORML	<b>NORML</b>	NORML	---
Emulsified Water	scalar	Visual*	>0.1	<b>NEG</b>	NEG	---

### FLUID CONDITION

The AN level is acceptable for this fluid. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

Sodium	ppm	ASTM D5185(m)		<b>3</b>	3	---
Boron	ppm	ASTM D5185(m)		<b>2</b>	2	---
Barium	ppm	ASTM D5185(m)		<b>0</b>	0	---
Molybdenum	ppm	ASTM D5185(m)		<b>0</b>	0	---
Manganese	ppm	ASTM D5185(m)		<b>&lt;1</b>	0	---
Magnesium	ppm	ASTM D5185(m)		<b>17</b>	15	---
Calcium	ppm	ASTM D5185(m)		<b>3496</b>	3789	---
Phosphorus	ppm	ASTM D5185(m)		<b>886</b>	909	---
Zinc	ppm	ASTM D5185(m)		<b>1059</b>	1084	---
Sulfur	ppm	ASTM D5185(m)		<b>6161</b>	6268	---
Acid Number (AN)	mg KOH/g	ASTM D974*		<b>1.59</b>	1.35	---
Visc @ 40°C	cSt	ASTM D7279(m)	35.0	<b>39.5</b>	38.0	---



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : LH0278111 **Received** : 21 May 2024  
**Lab Number** : 02636688 **Tested** : 22 May 2024  
**Unique Number** : 5785850 **Diagnosed** : 22 May 2024 - Kevin Marson  
**Test Package** : MOBCE ( Additional Tests: PQ, TAN Man )

**9262-1408 Quebec Inc.**  
 13125 Rue Industrielle  
 Sorel-Tracy, QC  
 CA J3R 0E8  
 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: