



# LIEBHERR

## OIL ANALYSIS REPORT

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



Area  
**(361220)**  
Machine Id  
**LIEBHERR LH50M 134706-1216**  
Component  
**Transmission (Manual)**  
Fluid  
**TDTO FLUID SAE 10W (--- GAL)**

### RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>LH</b>	LH	LH0250098
Sample Date		Client Info		<b>15 Feb 2024</b>	12 Sep 2023	27 Mar 2023
Machine Age	hrs	Client Info		<b>5100</b>	4000	1000
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>	Changed	Changed
Filter Changed		Client Info		<b>None</b>	None	None
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>200	<b>16</b>	13	21
Chromium	ppm	ASTM D5185(m)	>5	<b>0</b>	<1	0
Nickel	ppm	ASTM D5185(m)	>5	<b>&lt;1</b>	<1	<1
Titanium	ppm	ASTM D5185(m)		<b>0</b>	0	<1
Silver	ppm	ASTM D5185(m)	>7	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185(m)	>25	<b>2</b>	2	3
Lead	ppm	ASTM D5185(m)	>45	<b>&lt;1</b>	<1	<1
Copper	ppm	ASTM D5185(m)	>225	<b>14</b>	21	25
Tin	ppm	ASTM D5185(m)	>10	<b>&lt;1</b>	<1	<1
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	<1
White Metal	scalar	Visual*	NONE	<b>VLITE</b>	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

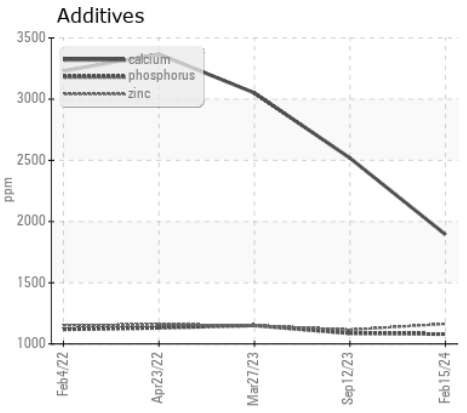
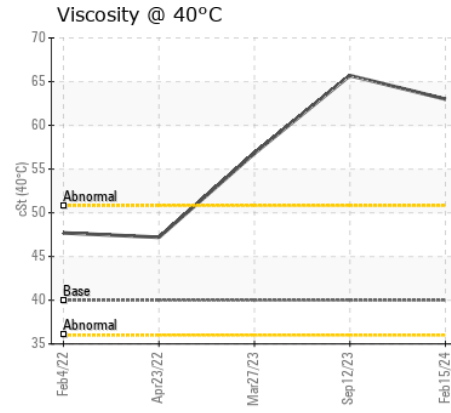
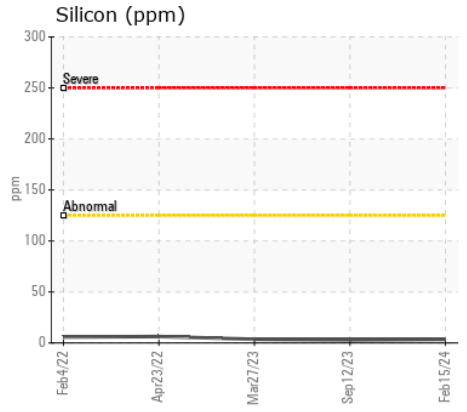
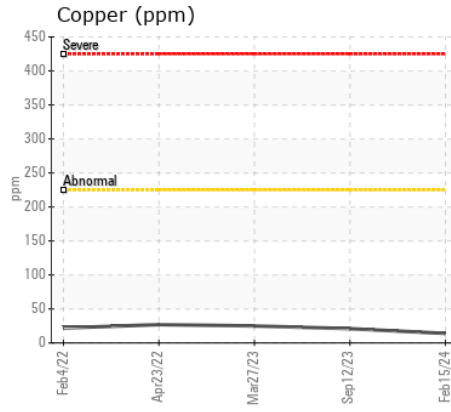
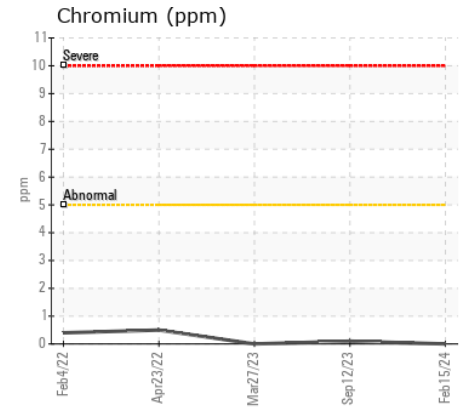
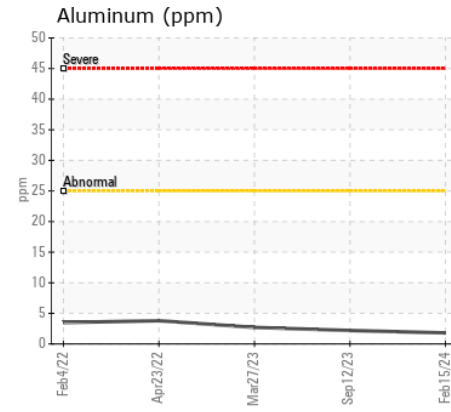
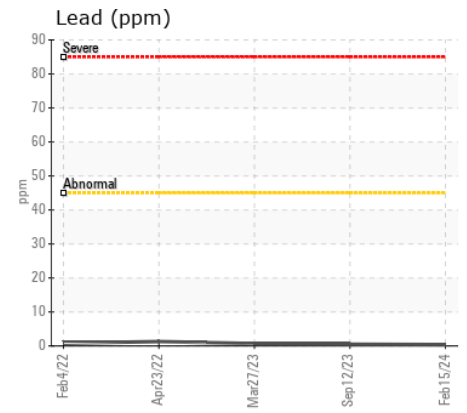
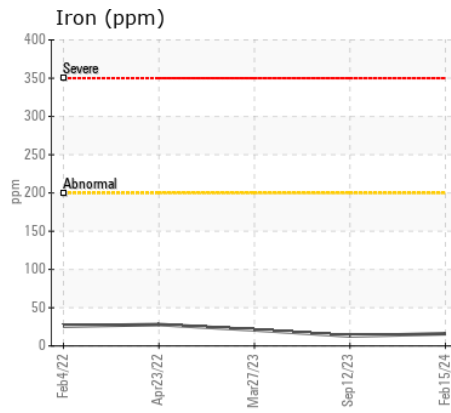
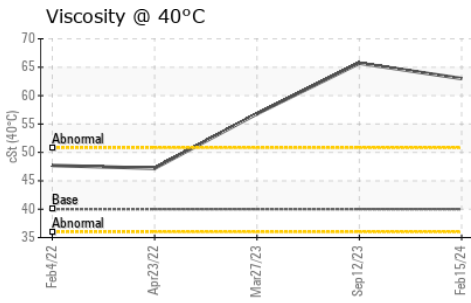
There is no indication of any contamination in the fluid.

Silicon	ppm	ASTM D5185(m)	>125	<b>4</b>	3	4
Potassium	ppm	ASTM D5185(m)	>20	<b>1</b>	1	2
Water		WC Method	>0.1	<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>VLITE</b>	NONE	VLITE
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

Viscosity of sample indicates oil is within SAE 30 range, advise investigate. The condition of the fluid is acceptable for the time in service.

Sodium	ppm	ASTM D5185(m)		<b>10</b>	16	28
Boron	ppm	ASTM D5185(m)	37	<b>37</b>	67	43
Barium	ppm	ASTM D5185(m)	7	<b>&lt;1</b>	<1	<1
Molybdenum	ppm	ASTM D5185(m)	5	<b>28</b>	0	0
Manganese	ppm	ASTM D5185(m)		<b>6</b>	7	16
Magnesium	ppm	ASTM D5185(m)	40	<b>451</b>	7	8
Calcium	ppm	ASTM D5185(m)	2650	<b>1894</b>	2519	3051
Phosphorus	ppm	ASTM D5185(m)	1050	<b>1080</b>	1086	1151
Zinc	ppm	ASTM D5185(m)	1075	<b>1164</b>	1115	1151
Sulfur	ppm	ASTM D5185(m)	5750	<b>4147</b>	4718	6215
Visc @ 40°C	cSt	ASTM D7279(m)	40	<b>63.0</b>	65.7	56.8



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : LH  
**Lab Number** : 02616707  
**Unique Number** : 5733817  
**Test Package** : MOB 1  
**Received** : 20 Feb 2024  
**Tested** : 20 Feb 2024  
**Diagnosed** : 21 Feb 2024 - Kevin Marson

**Industrial Metals**  
 550 Messier St.  
 Winnipeg, MB  
 CA R2J 0G5  
 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: