



# LIEBHERR

## OIL ANALYSIS REPORT



Area  
**(361220)**  
Machine Id  
**LIEBHERR LH50M 134706-1216**  
Component  
**Hydraulic System**  
Fluid  
**NOT GIVEN (--- GAL)**

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

### RECOMMENDATION

The filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>LH</b>	LH	LH0250100
Sample Date		Client Info		<b>15 Feb 2024</b>	12 Sep 2023	27 Mar 2023
Machine Age	hrs	Client Info		<b>5100</b>	4000	2610
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>Changed</b>	Changed	N/A
Sample Status				<b>ABNORMAL</b>	NORMAL	ABNORMAL

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>50	<b>30</b>	34	35
Chromium	ppm	ASTM D5185(m)	>5	<b>2</b>	2	2
Nickel	ppm	ASTM D5185(m)	>2	<b>&lt;1</b>	<1	<1
Titanium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Silver	ppm	ASTM D5185(m)		<b>0</b>	<1	0
Aluminum	ppm	ASTM D5185(m)	>2	<b>&lt;1</b>	<1	<1
Lead	ppm	ASTM D5185(m)	>4	<b>&lt;1</b>	<1	1
Copper	ppm	ASTM D5185(m)	>10	<b>3</b>	3	3
Tin	ppm	ASTM D5185(m)	>2	<b>0</b>	0	0
Vanadium	ppm	ASTM D5185(m)		<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

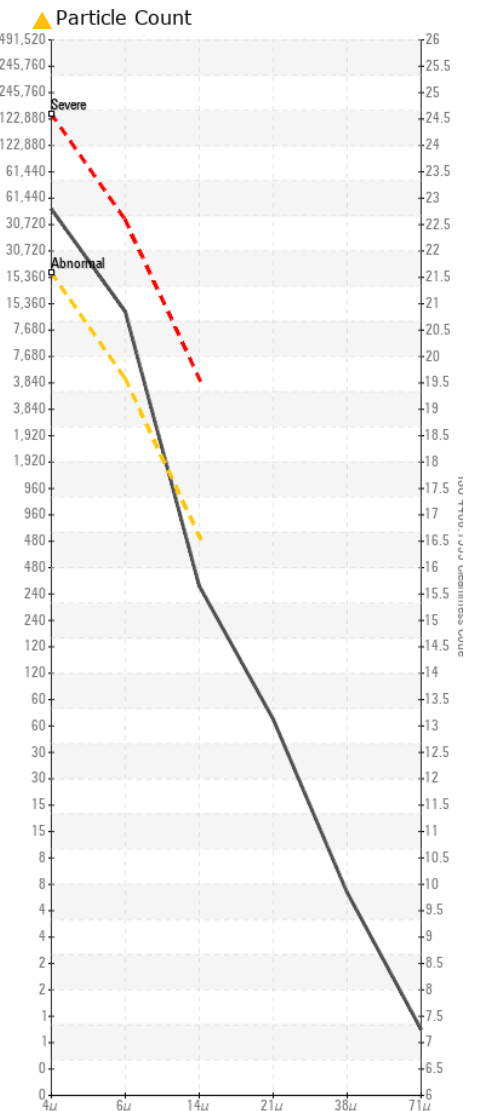
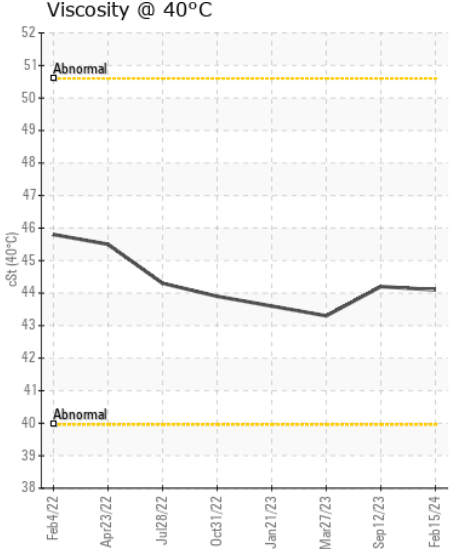
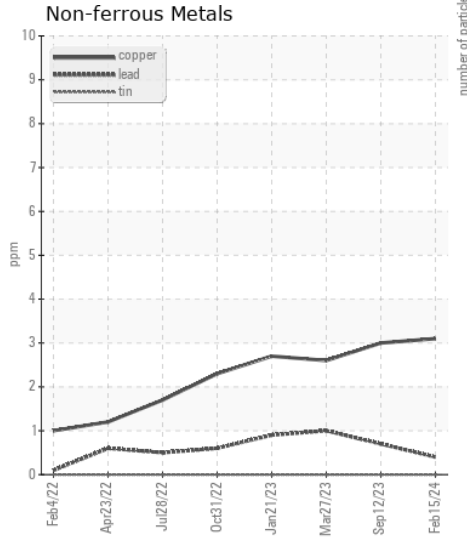
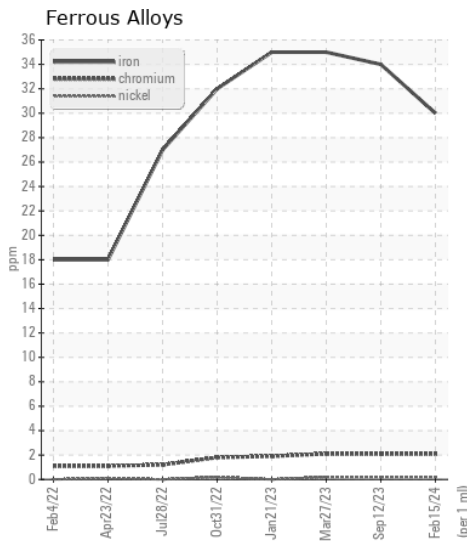
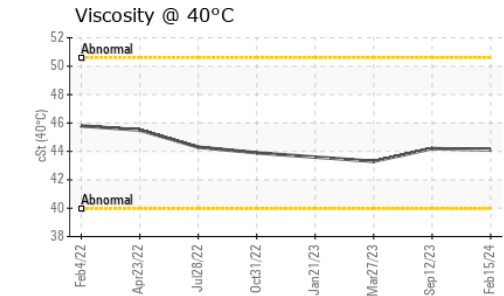
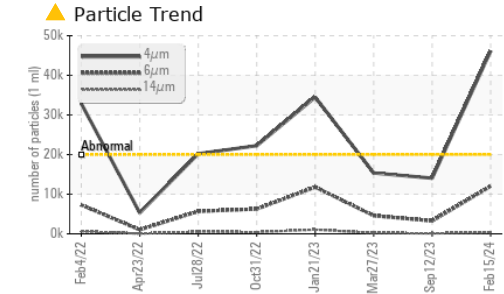
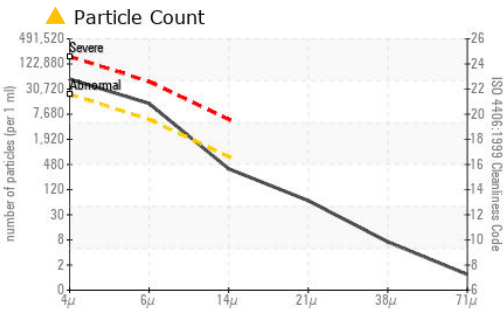
There is a moderate amount of silt (particulates < 14 microns in size) present in the oil.

Silicon	ppm	ASTM D5185(m)	>17	<b>2</b>	2	2
Potassium	ppm	ASTM D5185(m)	>20	<b>1</b>	1	2
Water		WC Method	>0.1	<b>NEG</b>	NEG	NEG
Particles >4µm		ASTM D7647	>20000	<b>▲ 46130</b>	14043	15354
Particles >6µm		ASTM D7647	>5000	<b>▲ 12037</b>	3274	4577
Particles >14µm		ASTM D7647	>640	<b>332</b>	98	218
Particles >21µm		ASTM D7647	>160	<b>58</b>	18	57
Particles >38µm		ASTM D7647	>40	<b>6</b>	1	1
Particles >71µm		ASTM D7647	>10	<b>1</b>	0	0
Oil Cleanliness		ISO 4406 (c)	>21/19/16	<b>▲ 23/21/16</b>	21/19/14	21/19/15
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	▲ .2%

### FLUID CONDITION

The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

Sodium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	1
Boron	ppm	ASTM D5185(m)		<b>5</b>	7	<1
Barium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m)		<b>0</b>	0	0
Manganese	ppm	ASTM D5185(m)		<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185(m)		<b>2</b>	2	3
Calcium	ppm	ASTM D5185(m)		<b>495</b>	590	806
Phosphorus	ppm	ASTM D5185(m)		<b>668</b>	724	689
Zinc	ppm	ASTM D5185(m)		<b>769</b>	767	770
Sulfur	ppm	ASTM D5185(m)		<b>2834</b>	2997	3052
Visc @ 40°C	cSt	ASTM D7279(m)		<b>44.1</b>	44.2	43.3



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : LH **Received** : 20 Feb 2024  
**Lab Number** : 02616690 **Tested** : 21 Feb 2024  
**Unique Number** : 5733800 **Diagnosed** : 21 Feb 2024 - Wes Davis  
**Test Package** : MOB 1 ( Additional Tests: PrtCount )

**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: