



# LIEBHERR

## OIL ANALYSIS REPORT

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



Machine Id  
**LIEBHERR LH50M 144842-1216**  
Component  
**Transmission (Manual)**  
Fluid  
**GEAR OIL SAE 80W90 (--- GAL)**

### RECOMMENDATION

Confirm the source of the lubricant being utilized for top-up/fill.  
Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>LH0270193</b>	LH0274760	LH0251809
Sample Date		Client Info		<b>27 Feb 2024</b>	23 Aug 2023	09 Mar 2023
Machine Age	hrs	Client Info		<b>2406</b>	1252	561
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>N/A</b>	N/A	N/A
Sample Status				<b>ABNORMAL</b>	ABNORMAL	ABNORMAL

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>200	<b>14</b>	20	▲ 269
Chromium	ppm	ASTM D5185(m)	>5	<b>0</b>	<1	2
Nickel	ppm	ASTM D5185(m)	>5	<b>0</b>	<1	<1
Titanium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Silver	ppm	ASTM D5185(m)	>7	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185(m)	>25	<b>2</b>	4	0
Lead	ppm	ASTM D5185(m)	>45	<b>&lt;1</b>	10	2
Copper	ppm	ASTM D5185(m)	>225	<b>20</b>	31	32
Tin	ppm	ASTM D5185(m)	>10	<b>&lt;1</b>	1	1
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0
White Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	VLITE
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

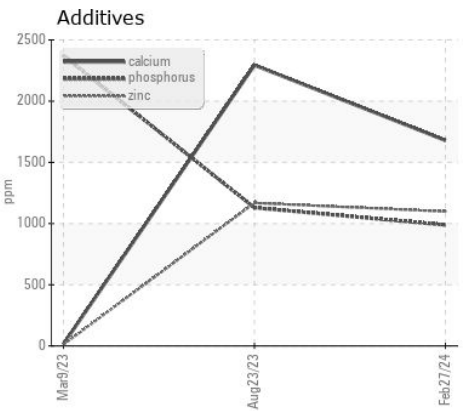
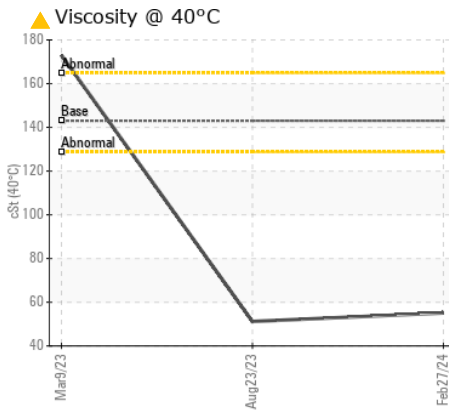
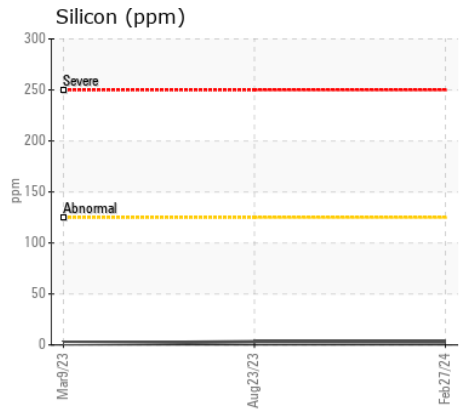
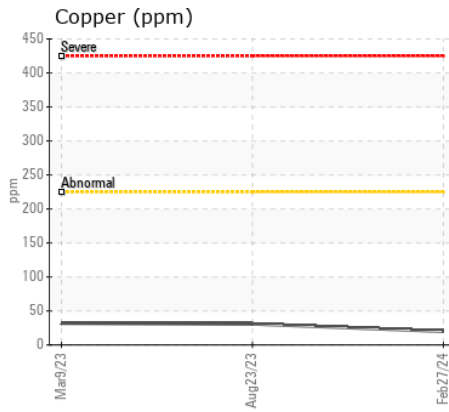
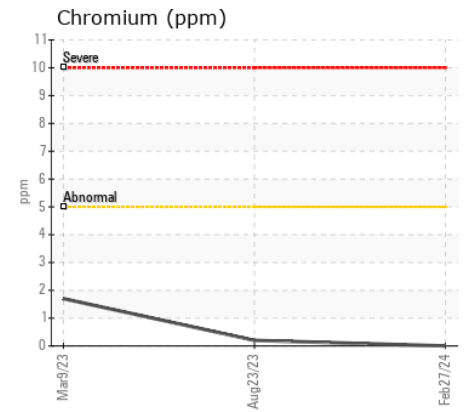
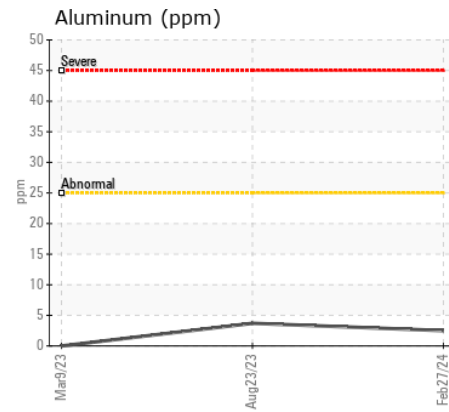
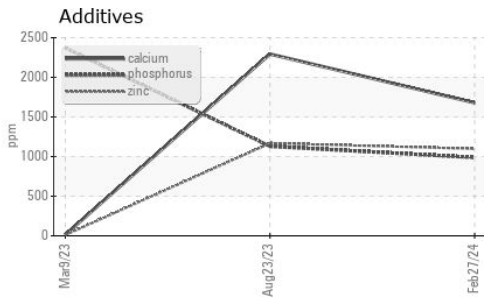
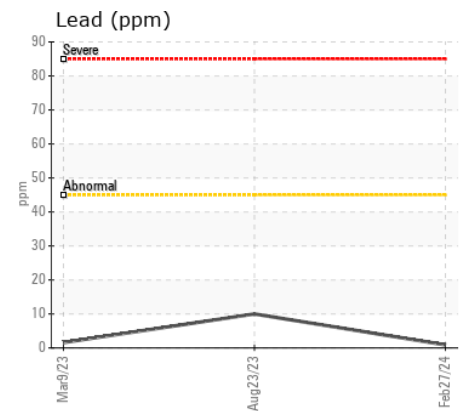
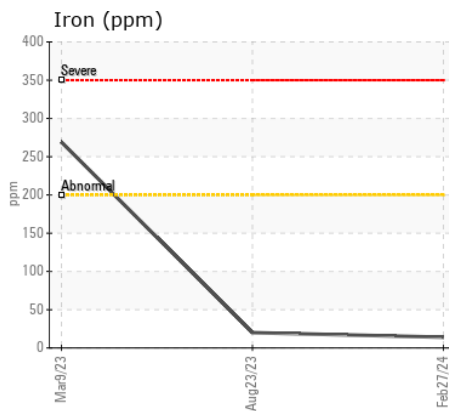
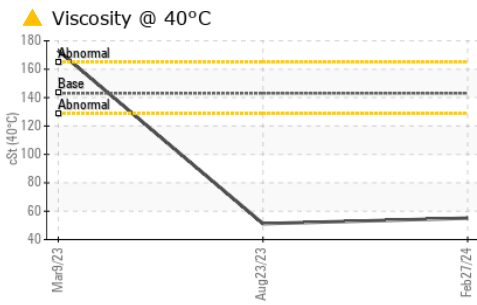
There is no indication of any contamination in the fluid.

Silicon	ppm	ASTM D5185(m)	>125	<b>3</b>	3	2
Potassium	ppm	ASTM D5185(m)	>20	<b>1</b>	3	1
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>	VLITE	NONE
Sand/Dirt	scalar	Visual*	NONE	<b>NONE</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 20 range, advise investigate. This plus the additive levels indicates that this is not the same brand, or type of oil as reported. The condition of the fluid is acceptable for the time in service.

Sodium	ppm	ASTM D5185(m)	>170	<b>19</b>	35	3
Boron	ppm	ASTM D5185(m)	400	<b>5</b>	7	18
Barium	ppm	ASTM D5185(m)	200	<b>&lt;1</b>	<1	4
Molybdenum	ppm	ASTM D5185(m)	12	<b>40</b>	26	0
Manganese	ppm	ASTM D5185(m)		<b>15</b>	21	3
Magnesium	ppm	ASTM D5185(m)	12	<b>632</b>	414	<1
Calcium	ppm	ASTM D5185(m)	150	<b>1679</b>	2294	15
Phosphorus	ppm	ASTM D5185(m)	1650	<b>988</b>	1129	2372
Zinc	ppm	ASTM D5185(m)	125	<b>1098</b>	1168	10
Sulfur	ppm	ASTM D5185(m)	22500	<b>4343</b>	5749	26329
Visc @ 40°C	cSt	ASTM D7279(m)	143	▲ <b>55.1</b>	▲ 51.2	173



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : LH0270193  
**Lab Number** : 02618760  
**Unique Number** : 5735870  
**Test Package** : MOB 1  
**Received** : 28 Feb 2024  
**Tested** : 28 Feb 2024  
**Diagnosed** : 29 Feb 2024 - Kevin Marson

**American Iron and Metal**  
 140 DOWTY ROAD  
 AJAX, ON  
 CA L1S 1P7  
 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.

T:  
F: