



# LIEBHERR

## OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL



Area  
**(354957)**  
Machine Id  
**LIEBHERR R918LC 053128-1721**  
Component  
**Right Final Drive**  
Fluid  
**LIEBHERR GEAR BASIC 90 LS (--- GAL)**

### RECOMMENDATION

We advise that you check all areas where dirt can enter the system. The oil 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>	LH0260748	LH0239157
Sample Date		Client Info		<b>19 Feb 2024</b>	15 May 2023	19 Aug 2022
Machine Age	hrs	Client Info		<b>3908</b>	2992	1980
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	NORMAL

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>500	<b>415</b>	365	213
Chromium	ppm	ASTM D5185(m)	>10	<b>5</b>	5	4
Nickel	ppm	ASTM D5185(m)	>10	<b>2</b>	2	2
Titanium	ppm	ASTM D5185(m)		<b>3</b>	5	2
Silver	ppm	ASTM D5185(m)		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185(m)	>25	<b>54</b>	60	22
Lead	ppm	ASTM D5185(m)	>25	<b>&lt;1</b>	0	0
Copper	ppm	ASTM D5185(m)	>50	<b>&lt;1</b>	<1	<1
Tin	ppm	ASTM D5185(m)	>10	<b>0</b>	0	0
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	<1	0
White Metal	scalar	Visual*	NONE	<b>VLITE</b>	NONE	VLITE
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

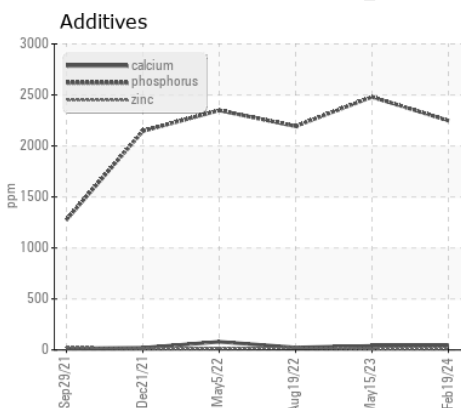
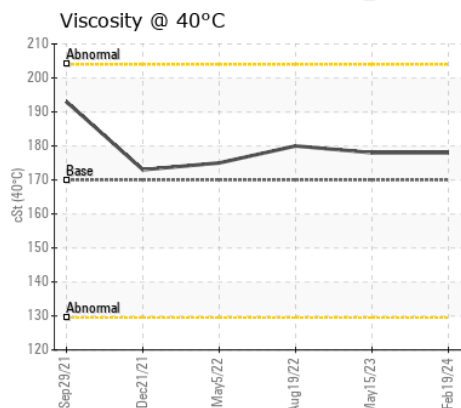
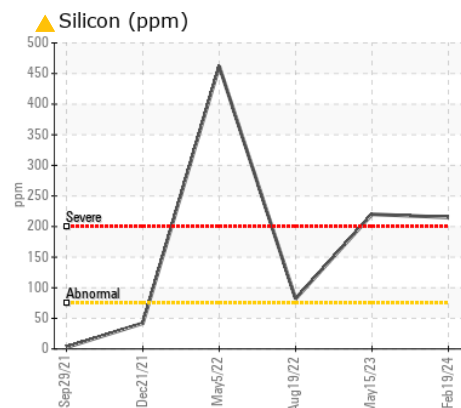
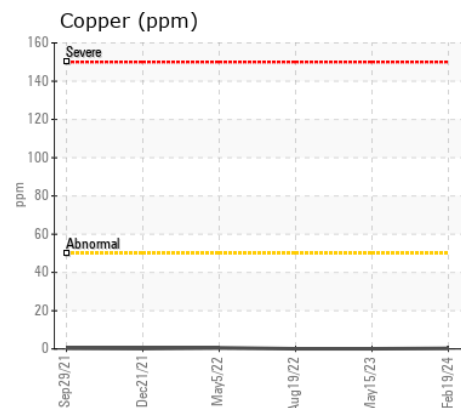
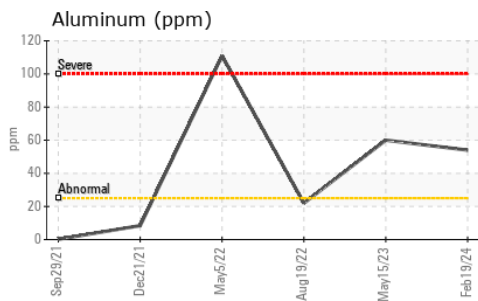
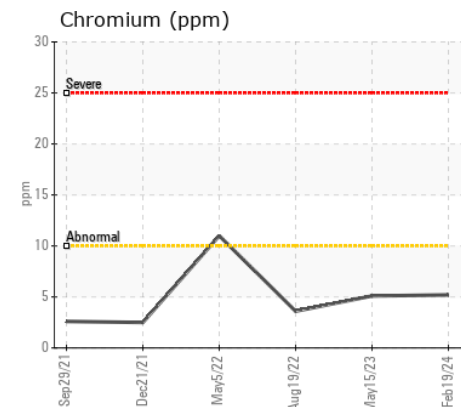
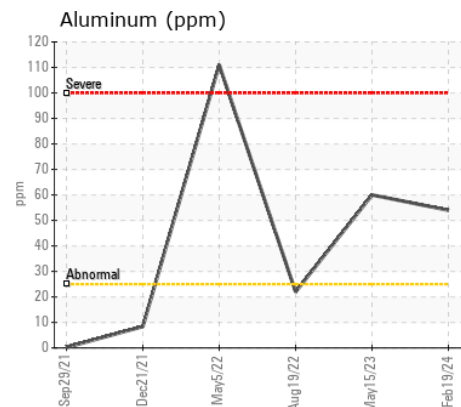
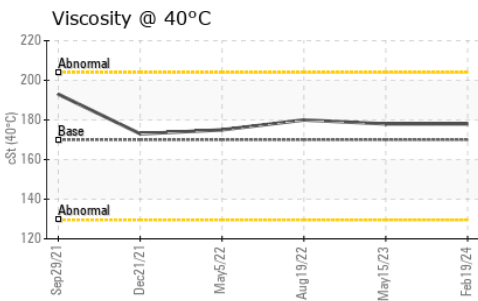
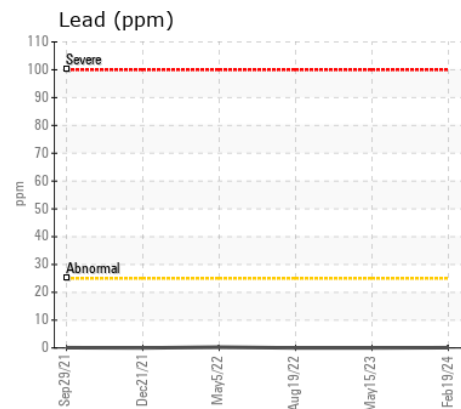
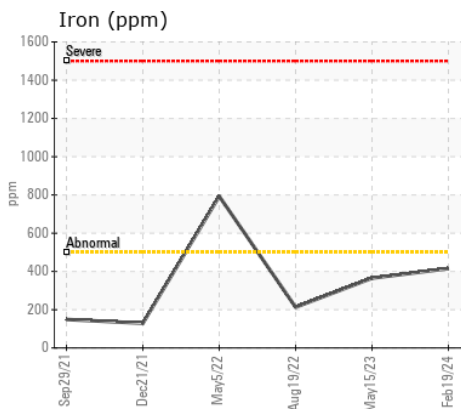
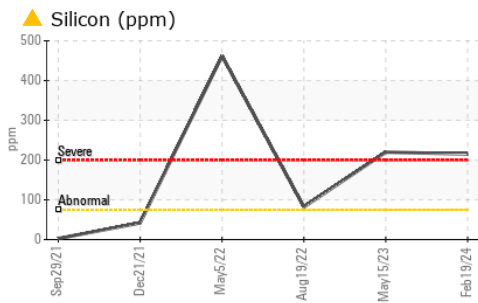
Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

Silicon	ppm	ASTM D5185(m)	>75	<b>▲ 215</b>	▲ 220	82
Potassium	ppm	ASTM D5185(m)	>20	<b>17</b>	16	6
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Silt	scalar	Visual*	NONE	<b>VLITE</b>	VLITE	NONE
Debris	scalar	Visual*	NONE	<b>NONE</b>	NONE	VLITE
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*	>0.2	<b>NEG</b>	NEG	NEG

### FLUID CONDITION

The oil is no longer serviceable due to the presence of contaminants.

Sodium	ppm	ASTM D5185(m)		<b>18</b>	18	10
Boron	ppm	ASTM D5185(m)	0	<b>&lt;1</b>	2	1
Barium	ppm	ASTM D5185(m)	0	<b>0</b>	0	<1
Molybdenum	ppm	ASTM D5185(m)	0	<b>0</b>	0	<1
Manganese	ppm	ASTM D5185(m)	0	<b>4</b>	4	2
Magnesium	ppm	ASTM D5185(m)	<1	<b>11</b>	11	5
Calcium	ppm	ASTM D5185(m)	<1	<b>45</b>	40	24
Phosphorus	ppm	ASTM D5185(m)	2143	<b>2248</b>	2480	2193
Zinc	ppm	ASTM D5185(m)	<1	<b>12</b>	8	21
Sulfur	ppm	ASTM D5185(m)	23468	<b>25126</b>	27426	35363
Visc @ 40°C	cSt	ASTM D7279(m)	170	<b>178</b>	178	180



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : LH **Received** : 29 Feb 2024  
**Lab Number** : 02619028 **Tested** : 29 Feb 2024  
**Unique Number** : 5736138 **Diagnosed** : 29 Feb 2024 - Kevin Marson  
**Test Package** : MOB 1

**Polyexcave Inc.**  
 787 Ch. Du Moine  
 St-Anne de Sorel, QC  
 CA J3P 5N3  
 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: