



# LIEBHERR

## OIL ANALYSIS REPORT

WEAR  
CONTAMINATION  
FLUID CONDITION

ATTENTION  
NORMAL  
ATTENTION



Machine Id  
**LIEBHERR L586 052323-1334**  
Component  
**Rear Differential**  
Fluid  
**LIEBHERR GEAR BASIC 90 LS (60 LTR)**

### RECOMMENDATION

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		LH0272202	LH0229250	LH0229181
Sample Date		Client Info		17 May 2024	07 Mar 2023	11 Oct 2022
Machine Age	hrs	Client Info		12782	9828	9071
Oil Age	hrs	Client Info		1000	1000	982
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				ATTENTION	NORMAL	NORMAL

### WEAR

An increase in the iron level is noted. An increase in the copper level is noted.

Iron	ppm	ASTM D5185m	>1500	● 1014	25	19
Chromium	ppm	ASTM D5185m	>10	8	<1	0
Nickel	ppm	ASTM D5185m	>4	2	0	0
Titanium	ppm	ASTM D5185m	>5	<1	0	0
Silver	ppm	ASTM D5185m		<1	0	0
Aluminum	ppm	ASTM D5185m	>20	2	0	<1
Lead	ppm	ASTM D5185m	>5	<1	0	<1
Copper	ppm	ASTM D5185m	>200	● 179	13	14
Tin	ppm	ASTM D5185m	>10	8	<1	0
Vanadium	ppm	ASTM D5185m		<1	0	<1
White Metal	scalar	*Visual	NONE	NONE	MODER	MODER
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

### CONTAMINATION

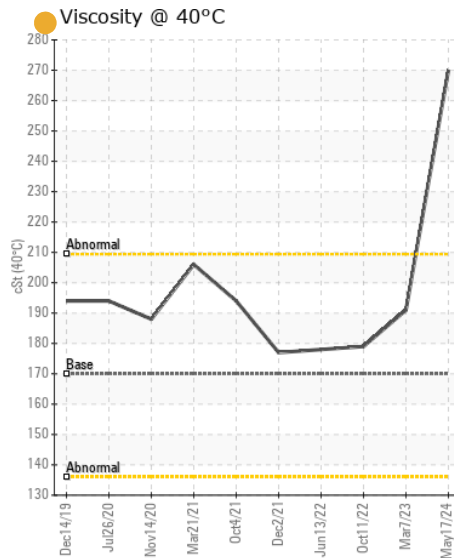
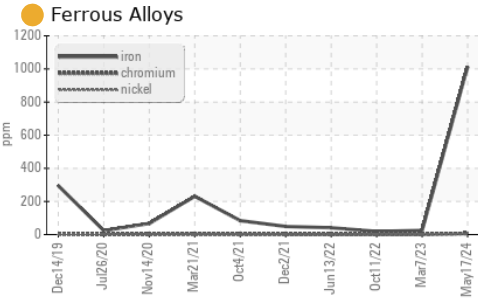
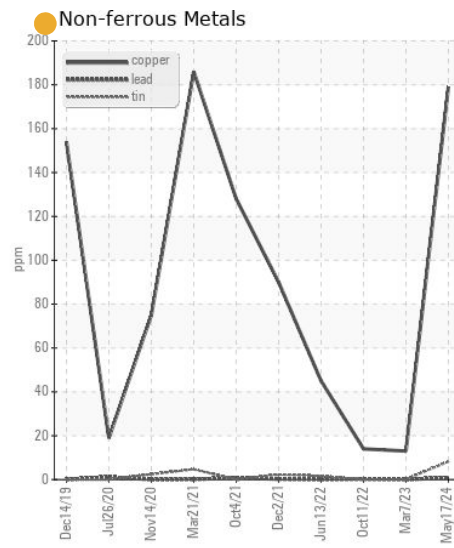
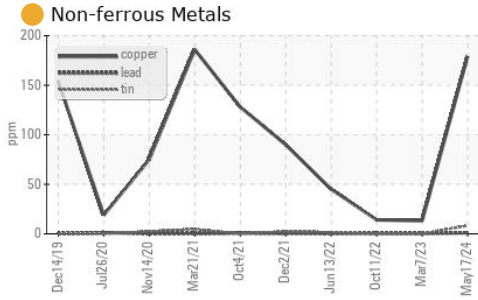
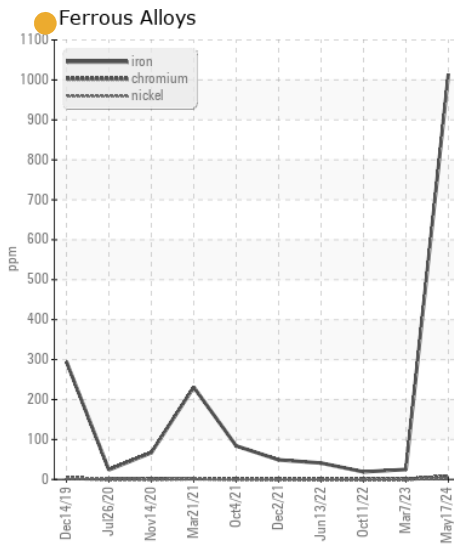
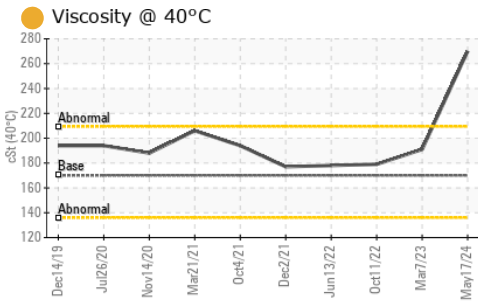
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>60	9	<1	2
Potassium	ppm	ASTM D5185m	>20	2	0	0
Water		WC Method	>.2	NEG	NEG	NEG
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>.2	NEG	NEG	NEG

### FLUID CONDITION

The oil viscosity is higher than normal. Confirm oil type.

Sodium	ppm	ASTM D5185m		5	1	1
Boron	ppm	ASTM D5185m	0	0	0	0
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	0	1	0	0
Manganese	ppm	ASTM D5185m	0	11	<1	1
Magnesium	ppm	ASTM D5185m	<1	1	1	0
Calcium	ppm	ASTM D5185m	<1	39	8	0
Phosphorus	ppm	ASTM D5185m	2143	3006	2369	2434
Zinc	ppm	ASTM D5185m	<1	54	11	5
Sulfur	ppm	ASTM D5185m	23468	34544	34444	25056
Visc @ 40°C	cSt	ASTM D445	170	● 270	191	179



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : LH0272202

Lab Number : 06186953

Unique Number : 11043705

Test Package : CONST

Received : 21 May 2024

Tested : 23 May 2024

Diagnosed : 23 May 2024 - Don Baldrige

**BENEVENTO SAND & STONE**

900 SALEM STREET PO Box 454

WILMINGTON, MA

US 01887

Contact: Service Manager

To discuss this sample report, contact Customer Service at 1-800-237-1369.

\* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

T:

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