



LIEBHERR

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
LIEBHERR R934 025778-918
Component
Left Final Drive
Fluid
GEAR OIL LS 80W90 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LH0204144	LH0190480	---
Sample Date		Client Info		12 Apr 2024	09 Apr 2021	---
Machine Age	hrs	Client Info		4594	3853	---
Oil Age	hrs	Client Info		0	0	---
Filter Age	hrs	Client Info		0	0	---
Oil Changed		Client Info		Not Changed	Changed	---
Filter Changed		Client Info		N/A	N/A	---
Sample Status				NORMAL	SEVERE	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>1700	161	1425	---
Chromium	ppm	ASTM D5185m	>30	4	33	---
Nickel	ppm	ASTM D5185m	>8	<1	6	---
Titanium	ppm	ASTM D5185m	>10	<1	3	---
Silver	ppm	ASTM D5185m		<1	0	---
Aluminum	ppm	ASTM D5185m	>100	5	33	---
Lead	ppm	ASTM D5185m	>10	2	10	---
Copper	ppm	ASTM D5185m	>100	59	▲ 564	---
Tin	ppm	ASTM D5185m	>8	3	▲ 41	---
Vanadium	ppm	ASTM D5185m		<1	<1	---
White Metal	scalar	*Visual	NONE	NONE	LIGHT	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

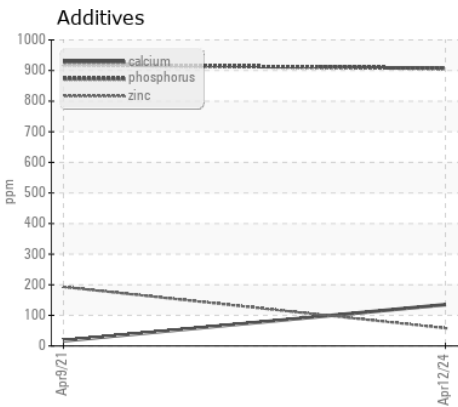
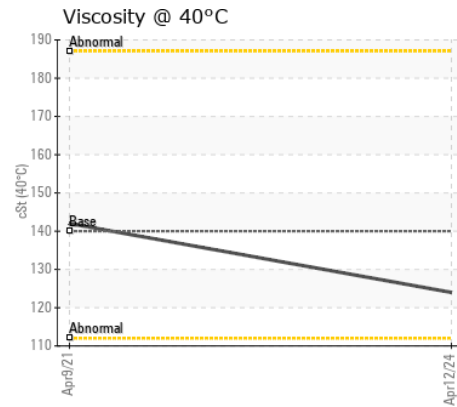
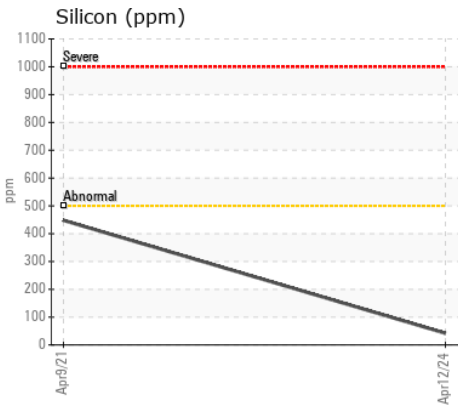
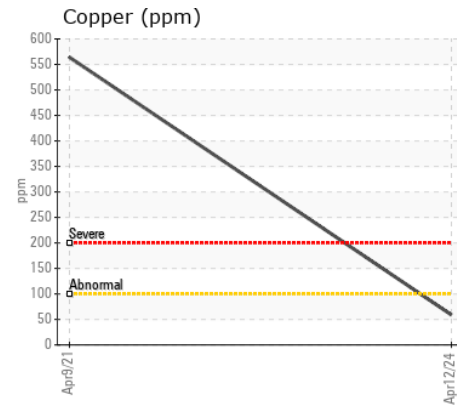
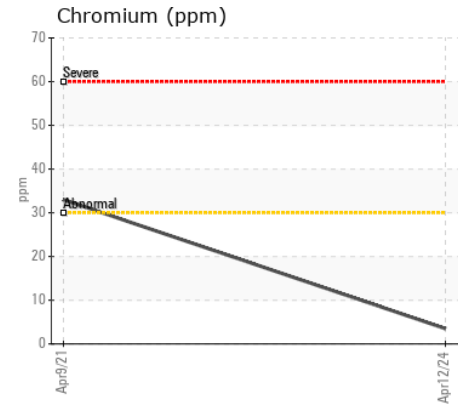
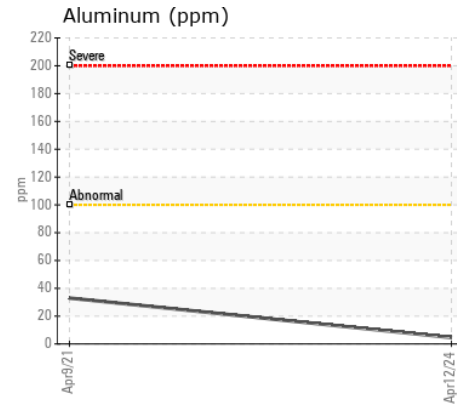
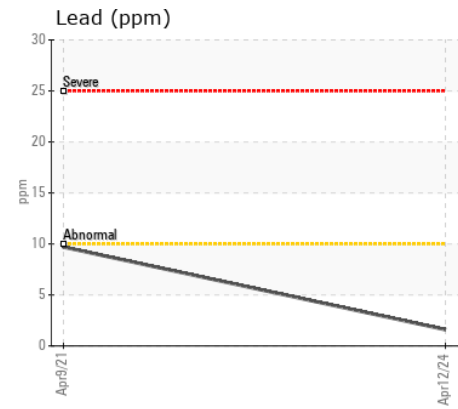
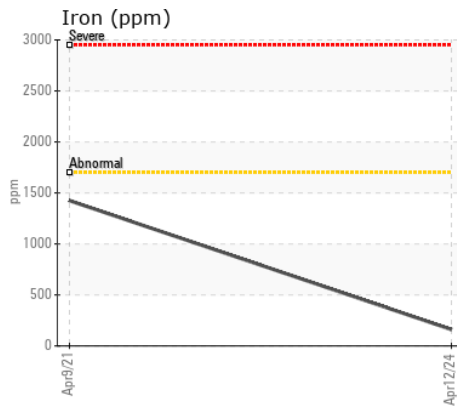
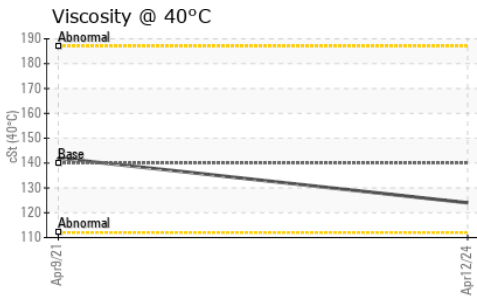
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>500	42	448	---
Potassium	ppm	ASTM D5185m	>20	4	26	---
Water		WC Method	>0.2	NEG	NEG	---
Silt	scalar	*Visual	NONE	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	---

FLUID CONDITION

The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m		2	14	---
Boron	ppm	ASTM D5185m	150	57	62	---
Barium	ppm	ASTM D5185m		0	2	---
Molybdenum	ppm	ASTM D5185m		2	0	---
Manganese	ppm	ASTM D5185m		2	16	---
Magnesium	ppm	ASTM D5185m	10	19	3	---
Calcium	ppm	ASTM D5185m	70	135	17	---
Phosphorus	ppm	ASTM D5185m	2000	907	919	---
Zinc	ppm	ASTM D5185m	50	58	193	---
Sulfur	ppm	ASTM D5185m	20000	22586	19504	---
Visc @ 40°C	cSt	ASTM D445	140	124	142	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : LH0204144
Lab Number : 06153845
Unique Number : 10989268
Test Package : MOBCE

Received : 18 Apr 2024
Tested : 23 Apr 2024
Diagnosed : 23 Apr 2024 - Wes Davis

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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)