



LIEBHERR

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
LIEBHERR LH40M 1215-124371
Component
Rear Left Wheel Hub
Fluid
GEAR OIL SAE 80W90 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LH0204779	LH0236265	LH0213421
Sample Date		Client Info		20 Jan 2023	06 Sep 2022	24 Feb 2022
Machine Age	hrs	Client Info		2616	1949	1033
Oil Age	hrs	Client Info		671	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	Changed	Changed
Filter Changed		Client Info		N/A	Not Changed	None
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>650	8	10	24
Chromium	ppm	ASTM D5185m	>4	0	<1	<1
Nickel	ppm	ASTM D5185m	>4	0	0	<1
Titanium	ppm	ASTM D5185m	>4	<1	0	0
Silver	ppm	ASTM D5185m		0	<1	0
Aluminum	ppm	ASTM D5185m	>25	0	<1	2
Lead	ppm	ASTM D5185m	>4	0	<1	2
Copper	ppm	ASTM D5185m	>60	3	9	24
Tin	ppm	ASTM D5185m	>4	0	0	0
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	MODER	NONE	LIGHT
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

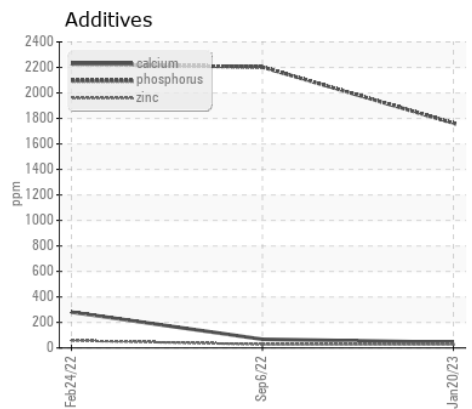
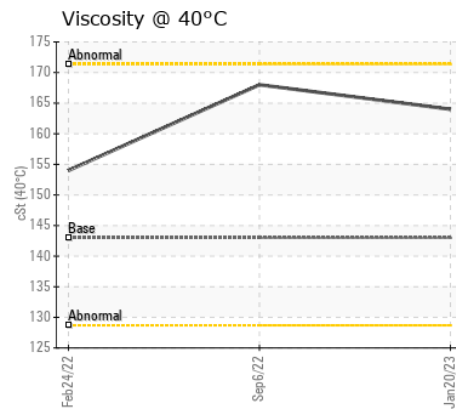
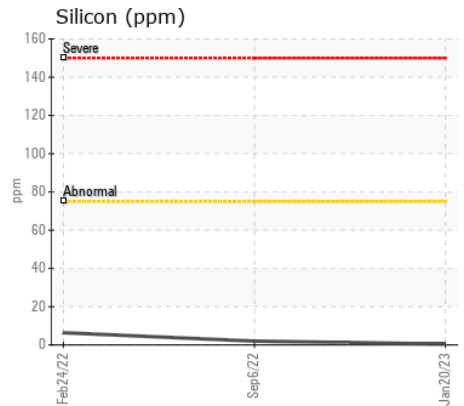
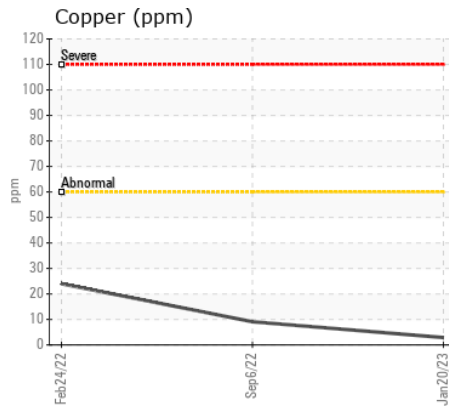
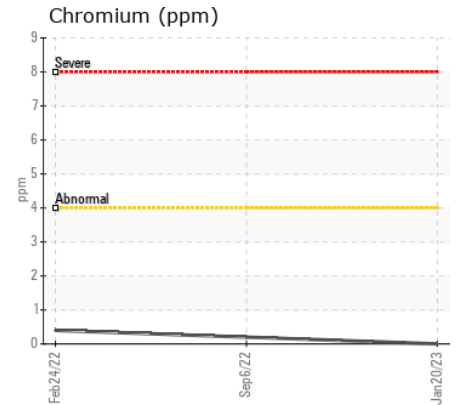
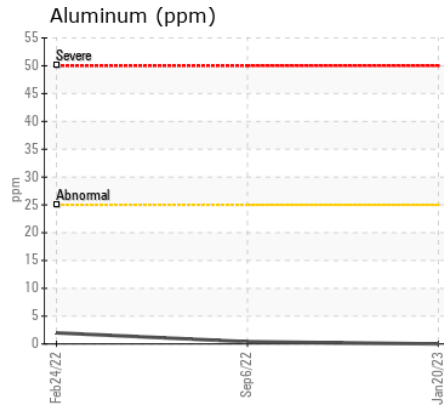
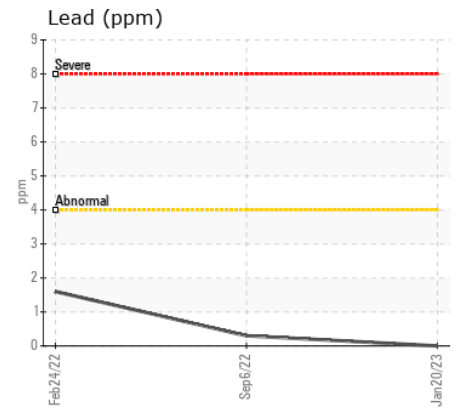
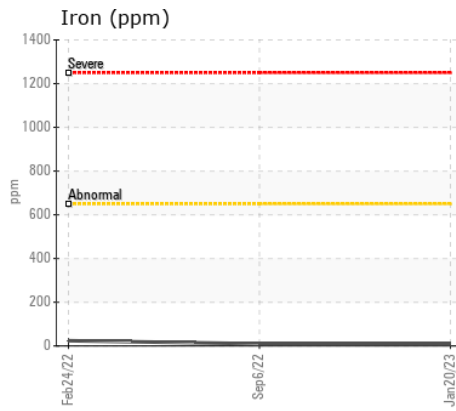
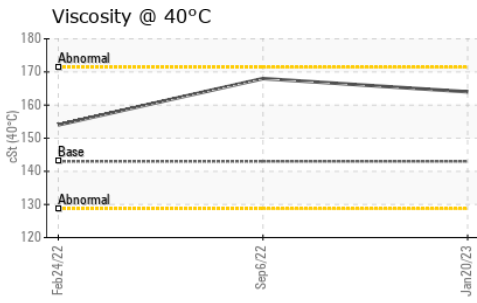
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>75	<1	2	6
Potassium	ppm	ASTM D5185m	>20	0	0	2
Water		WC Method	>0.2	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	>0.2	NEG	NEG	NEG

FLUID CONDITION

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

Sodium	ppm	ASTM D5185m	>170	2	7	7
Boron	ppm	ASTM D5185m	400	8	7	8
Barium	ppm	ASTM D5185m	200	0	11	0
Molybdenum	ppm	ASTM D5185m	12	2	<1	3
Manganese	ppm	ASTM D5185m		<1	<1	1
Magnesium	ppm	ASTM D5185m	12	12	13	2
Calcium	ppm	ASTM D5185m	150	44	68	281
Phosphorus	ppm	ASTM D5185m	1650	1763	2203	2227
Zinc	ppm	ASTM D5185m	125	28	28	58
Sulfur	ppm	ASTM D5185m	22500	30976	25056	23499
Visc @ 40°C	cSt	ASTM D445	143	164	168	154



Certificate L2367

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

Sample No. : LH0204779

Lab Number : 05751107

Unique Number : 10310711

Test Package : MOBCE

Received : 26 Jan 2023

Tested : 27 Jan 2023

Diagnosed : 27 Jan 2023 - Sean Felton

SADOFF IRON AND METAL

240 ARNDT STREET

FOND DU LAC, WI

US 54936

Contact: DAVE CASPER

casperd@sadoff.com

T:

F:

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)