



LIEBHERR

OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Area
(352940)
Machine Id
LIEBHERR LH40M 123939-1215
Component
Front Right Wheel Hub
Fluid
GEAR OIL SAE 75W90 (--- GAL)

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		LH0286710	LH0251522	LH0227274
Sample Date		Client Info		16 Apr 2024	20 Jan 2023	28 Mar 2022
Machine Age	hrs	Client Info		2235	975	402
Oil Age	hrs	Client Info		0	0	0
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				ABNORMAL	NORMAL	NORMAL

WEAR

Copper ppm levels are abnormal. Bearing and/or bushing wear is indicated.

Iron	ppm	ASTM D5185(m)	>650	87	56	51
Chromium	ppm	ASTM D5185(m)	>4	0	0	<1
Nickel	ppm	ASTM D5185(m)	>4	0	<1	<1
Titanium	ppm	ASTM D5185(m)	>4	0	0	0
Silver	ppm	ASTM D5185(m)		0	0	0
Aluminum	ppm	ASTM D5185(m)	>25	3	2	2
Lead	ppm	ASTM D5185(m)	>4	2	1	<1
Copper	ppm	ASTM D5185(m)	>60	▲ 84	44	25
Tin	ppm	ASTM D5185(m)	>4	0	0	<1
Vanadium	ppm	ASTM D5185(m)		0	0	0
White Metal	scalar	Visual*	NONE	VLITE	NONE	VLITE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	NONE

CONTAMINATION

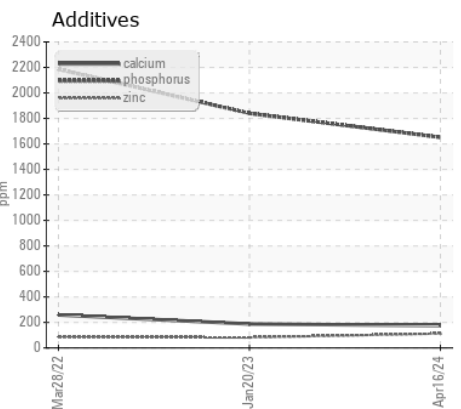
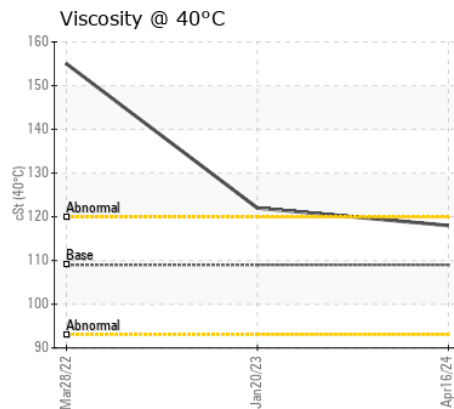
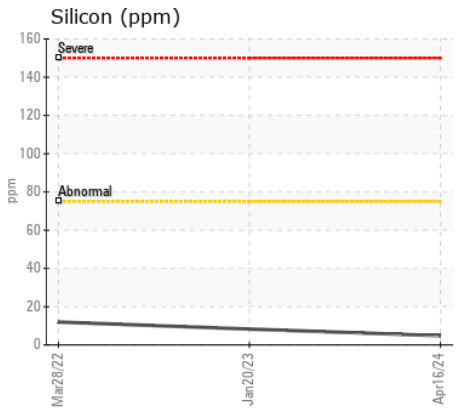
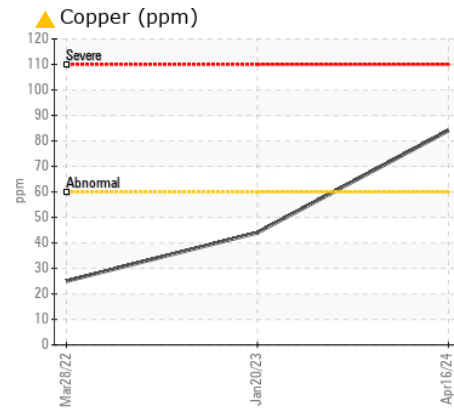
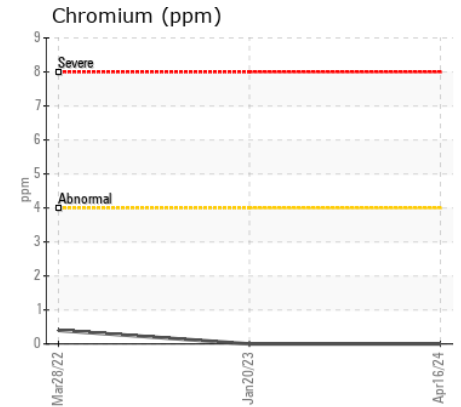
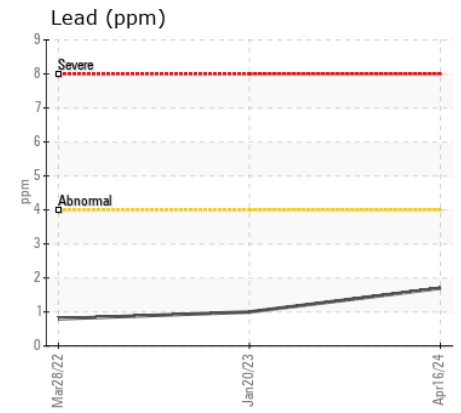
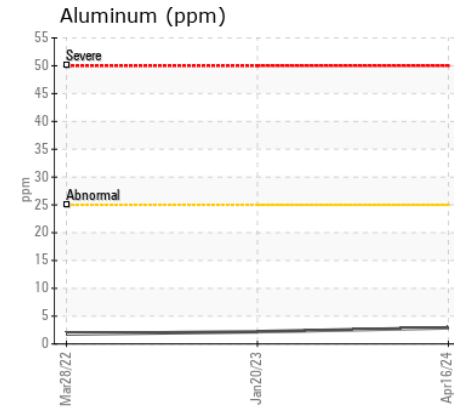
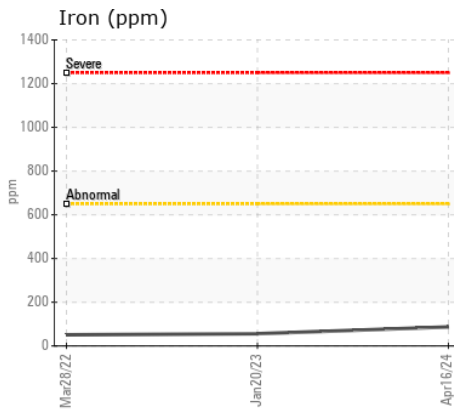
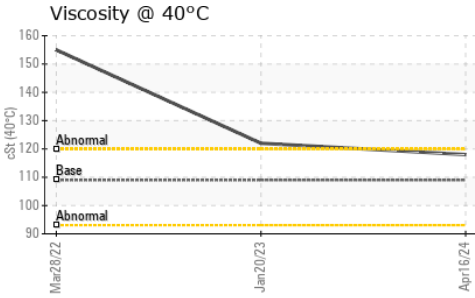
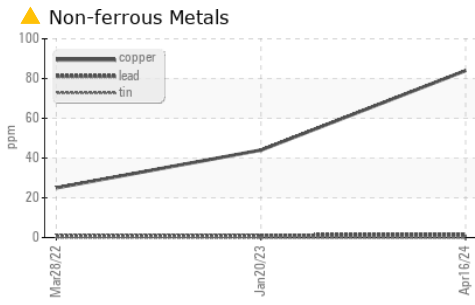
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>75	5	8	12
Potassium	ppm	ASTM D5185(m)	>20	<1	<1	2
Water		WC Method	>0.2	NEG	NEG	NEG
Silt	scalar	Visual*	NONE	VLITE	NONE	NONE
Debris	scalar	Visual*	NONE	NONE	VLITE	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

The oil is no longer serviceable as a result of the abnormal and/or severe wear.

Sodium	ppm	ASTM D5185(m)		10	10	10
Boron	ppm	ASTM D5185(m)	400	115	91	5
Barium	ppm	ASTM D5185(m)	200	<1	<1	<1
Molybdenum	ppm	ASTM D5185(m)	12	0	<1	2
Manganese	ppm	ASTM D5185(m)		5	3	2
Magnesium	ppm	ASTM D5185(m)	12	2	2	2
Calcium	ppm	ASTM D5185(m)	150	175	188	259
Phosphorus	ppm	ASTM D5185(m)	1650	1652	1840	2186
Zinc	ppm	ASTM D5185(m)	125	113	82	85
Sulfur	ppm	ASTM D5185(m)	22500	22258	23312	25168
Visc @ 40°C	cSt	ASTM D7279(m)	109	118	122	155



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : LH0286710 **Received** : 17 Apr 2024
Lab Number : 02629774 **Tested** : 18 Apr 2024
Unique Number : 5762906 **Diagnosed** : 18 Apr 2024 - Kevin Marson
Test Package : MOB 1

PORT PERRY SALVAGE
 132 REACH INDUSTRIAL PARK
 PORT PERRY, ON
 CA L9L 1B2
 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.

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F: