



LIEBHERR

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ABNORMAL



Area
(336343)
Machine Id
LIEBHERR LH50M 124905-1216
Component
Front Left Wheel Hub
Fluid
GEAR OIL SAE 75W90 (--- GAL)

RECOMMENDATION

Confirm the source of the lubricant being utilized for top-up/fill.
Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LH0290544	LH0182508	LH0182494
Sample Date		Client Info		27 Jun 2024	01 Jun 2021	29 Apr 2021
Machine Age	hrs	Client Info		22074	4702	4100
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		None	None	None
Sample Status				ABNORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>325	172	95	188
Chromium	ppm	ASTM D5185(m)	>3	<1	<1	2
Nickel	ppm	ASTM D5185(m)	>2	<1	<1	<1
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)		0	0	6
Aluminum	ppm	ASTM D5185(m)	>10	1	<1	1
Lead	ppm	ASTM D5185(m)	>4	0	<1	<1
Copper	ppm	ASTM D5185(m)	>75	8	16	21
Tin	ppm	ASTM D5185(m)	>3	0	0	<1
Vanadium	ppm	ASTM D5185(m)		0	0	<1
White Metal	scalar	Visual*	NONE	VLITE	VLITE	LTMOD
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	NONE

CONTAMINATION

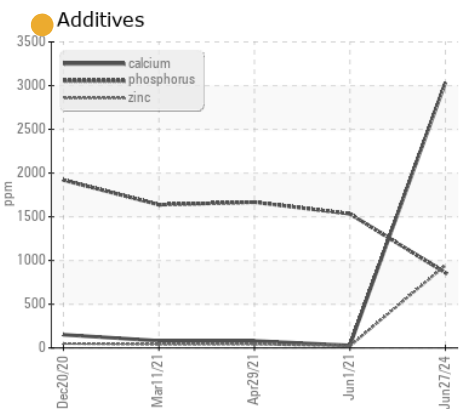
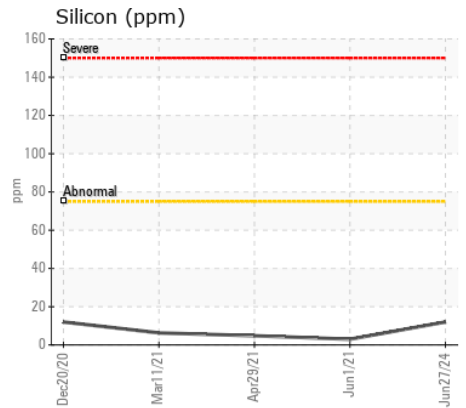
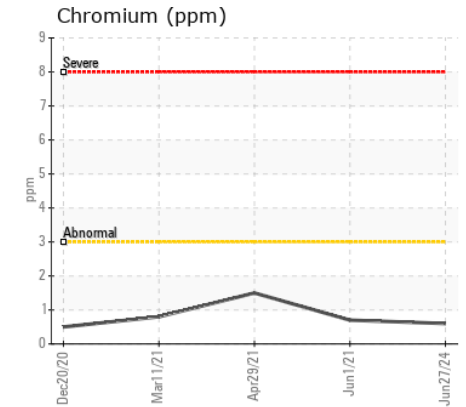
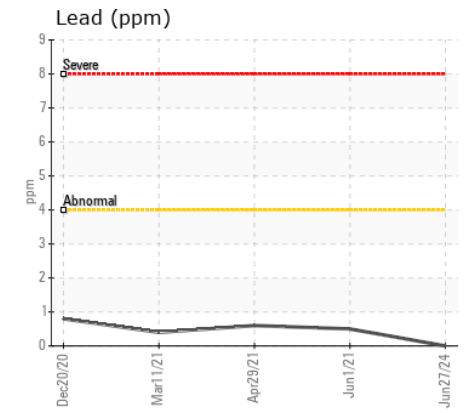
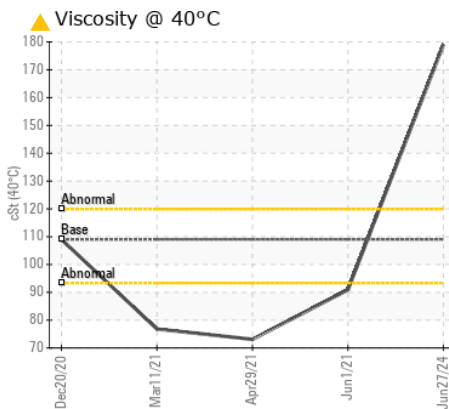
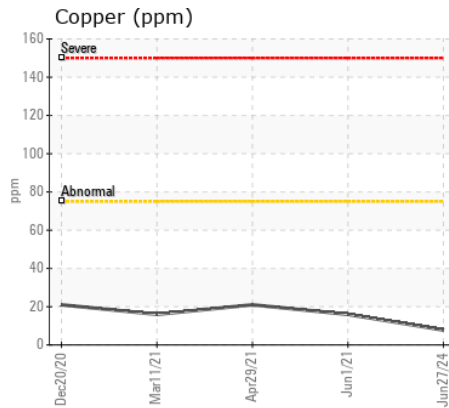
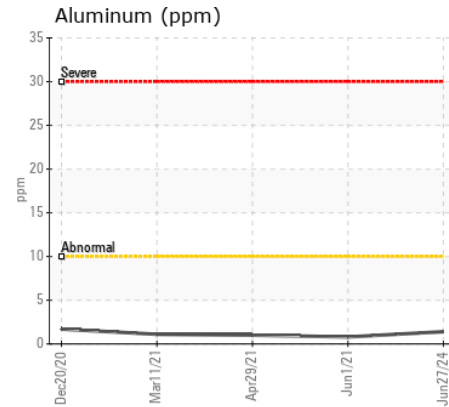
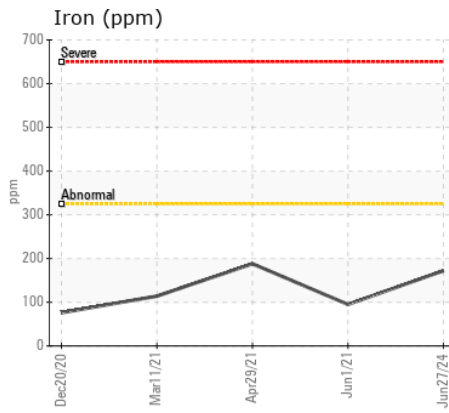
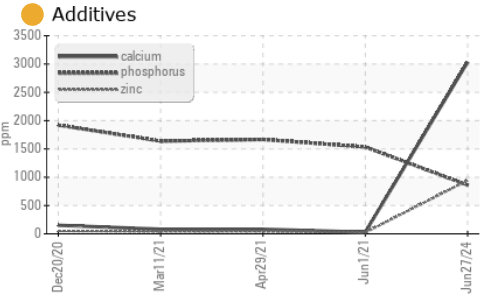
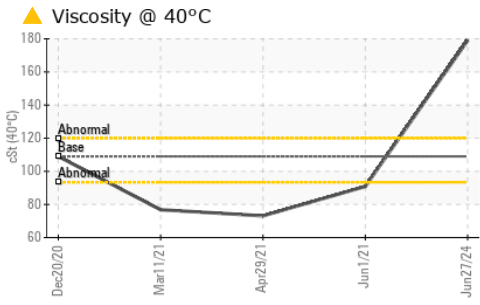
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>75	12	3	5
Potassium	ppm	ASTM D5185(m)	>20	<1	1	1
Water		WC Method	>0.2	NEG	NEG	NEG
Silt	scalar	Visual*	NONE	LIGHT	NONE	NONE
Debris	scalar	Visual*	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE	NONE
Appearance	scalar	Visual*	NORML	NORML	HAZY	NORML
Odor	scalar	Visual*	NORML	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG

FLUID CONDITION

Viscosity of sample indicates oil is within SAE 50 range, advise investigate. This plus the additive levels indicates that this is not the same brand, or type of oil as reported. The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185(m)		<1	5	7
Boron	ppm	ASTM D5185(m)	400	24	180	5
Barium	ppm	ASTM D5185(m)	200	0	0	0
Molybdenum	ppm	ASTM D5185(m)	12	<1	<1	<1
Manganese	ppm	ASTM D5185(m)		1	2	3
Magnesium	ppm	ASTM D5185(m)	12	8	<1	<1
Calcium	ppm	ASTM D5185(m)	150	3035	29	81
Phosphorus	ppm	ASTM D5185(m)	1650	860	1534	1667
Zinc	ppm	ASTM D5185(m)	125	943	22	42
Sulfur	ppm	ASTM D5185(m)	22500	6176	25291	29624
Visc @ 40°C	cSt	ASTM D7279(m)	109	179	90.9	73.1



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : LH0290544 **Received** : 04 Jul 2024
Lab Number : 02645552 **Tested** : 04 Jul 2024
Unique Number : 5803091 **Diagnosed** : 05 Jul 2024 - Kevin Marson
Test Package : MOB 1

CANFOR
 101-161 E 4TH AVE
 VANCOUVER, BC
 CA V5T 3C1
 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: