



LIEBHERR

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
LIEBHERR LH50M 145181-1216
Component
Diesel Engine
Fluid
SAE 5W30 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LH0286809	LH0277541	LH0274807
Sample Date		Client Info		01 Apr 2024	04 Jan 2024	29 Aug 2023
Machine Age	hrs	Client Info		2082	1614	1043
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				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>66	4	4	5
Chromium	ppm	ASTM D5185(m)	>4	0	<1	<1
Nickel	ppm	ASTM D5185(m)	>4	0	<1	0
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)	>3	0	0	0
Aluminum	ppm	ASTM D5185(m)	>8	1	1	1
Lead	ppm	ASTM D5185(m)	>10	0	2	5
Copper	ppm	ASTM D5185(m)	>74	6	45	169
Tin	ppm	ASTM D5185(m)	>4	0	<1	<1
Vanadium	ppm	ASTM D5185(m)		0	0	0

CONTAMINATION

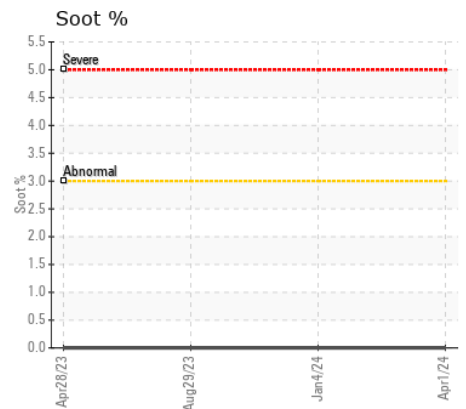
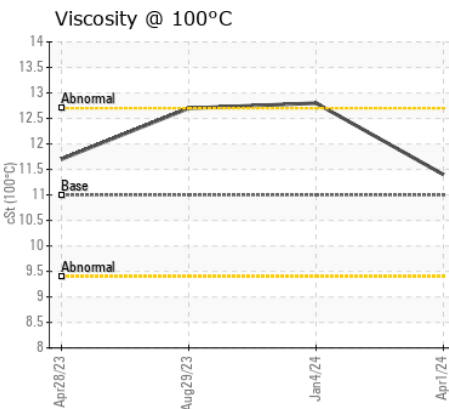
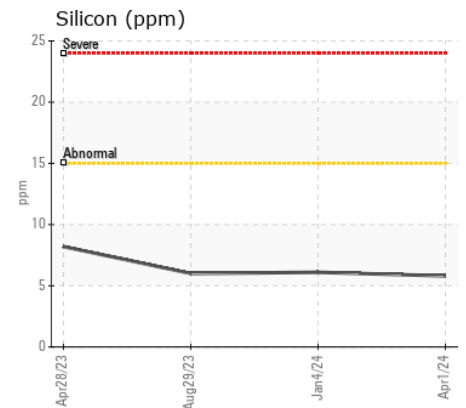
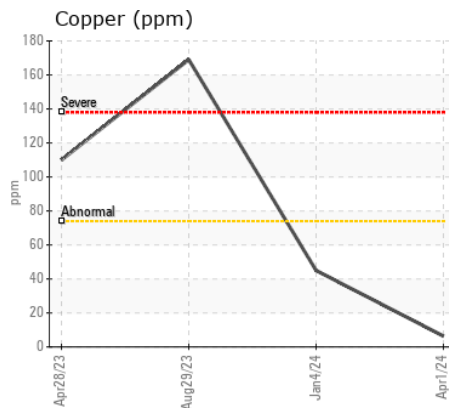
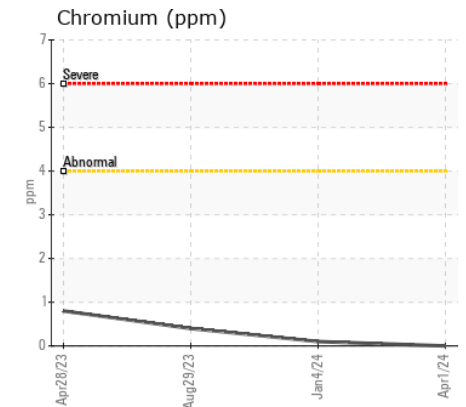
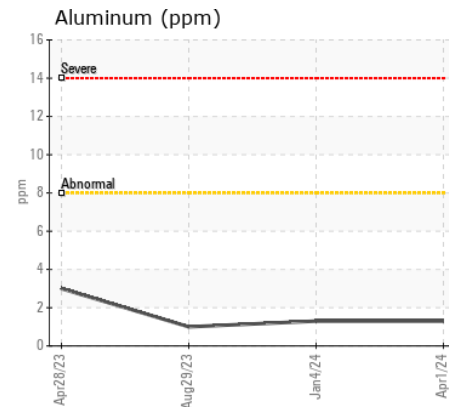
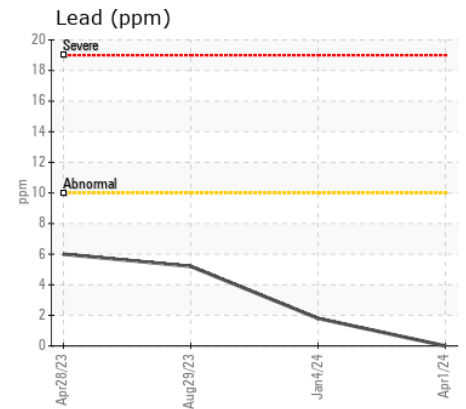
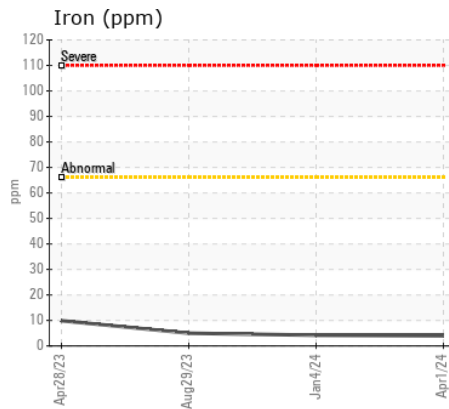
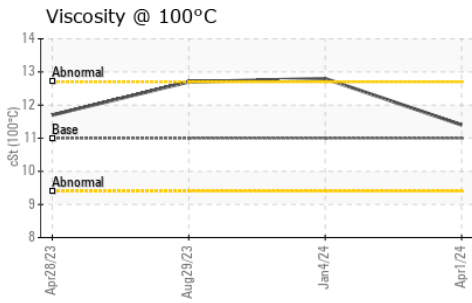
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>15	6	6	6
Potassium	ppm	ASTM D5185(m)	>20	0	0	<1
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	0.0
Soot %	%	ASTM D7844*	>3	0	0	0
Nitration	Abs/cm	ASTM D7624*	>20	9.9	8.4	8.5
Sulfation	Abs/.1mm	ASTM D7415*	>30	20.5	20.1	22.2
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG

FLUID CONDITION

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

Sodium	ppm	ASTM D5185(m)		3	1	2
Boron	ppm	ASTM D5185(m)		29	2	7
Barium	ppm	ASTM D5185(m)		<1	<1	3
Molybdenum	ppm	ASTM D5185(m)		57	58	57
Manganese	ppm	ASTM D5185(m)		0	0	<1
Magnesium	ppm	ASTM D5185(m)		1094	970	983
Calcium	ppm	ASTM D5185(m)		839	1067	1084
Phosphorus	ppm	ASTM D5185(m)		971	962	1014
Zinc	ppm	ASTM D5185(m)		1191	1153	1181
Sulfur	ppm	ASTM D5185(m)		2600	2264	2332
Oxidation	Abs/.1mm	ASTM D7414*	>25	20.2	17.9	19.3
Visc @ 100°C	cSt	ASTM D7279(m)	11.0	11.4	12.8	12.7



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : LH0286809
Lab Number : 02626035
Unique Number : 5759167
Test Package : MOB 1
Received : 02 Apr 2024
Tested : 02 Apr 2024
Diagnosed : 03 Apr 2024 - Kevin Marson

METALOGICS INC
 70 NORTH QUEEN ST.
 ETOBICOKE, ON
 CA M8Z 2C7
 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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