MOB I

LIEBHERR

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
LIEBHERR LH60M 120561-1217
Component
Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 5W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

WEAR

All component wear rates are normal.

CONTAMINATION

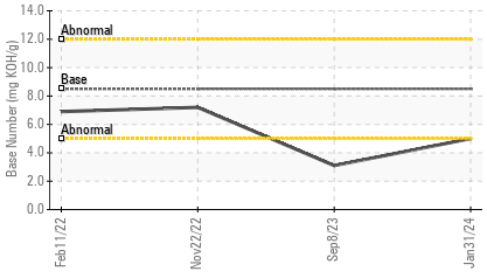
There is no indication of any contamination in the oil.

FLUID CONDITION

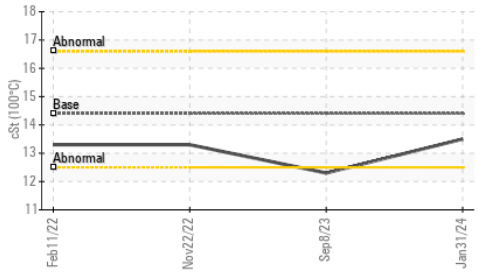
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LHMC155859	LH0253859	LH0220671
Sample Date		Client Info		31 Jan 2024	08 Sep 2023	22 Nov 2022
Machine Age	hrs	Client Info		4643	3762	1973
Oil Age	hrs	Client Info		0	0	500
Filter Age	hrs	Client Info		0	0	500
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		N/A	N/A	Changed
Sample Status				NORMAL	ABNORMAL	NORMAL
Iron	ppm	ASTM D5185m	>100	11	45	5
Chromium	ppm	ASTM D5185m	>5	1	3	<1
Nickel	ppm	ASTM D5185m	>5	<1	0	<1
Titanium	ppm	ASTM D5185m		96	0	91
Silver	ppm	ASTM D5185m	>3	0	0	<1
Aluminum	ppm	ASTM D5185m	>15	4	▲ 20	2
Lead	ppm	ASTM D5185m	>30	2	0	1
Copper	ppm	ASTM D5185m	>125	9	7	5
Tin	ppm	ASTM D5185m	>5	1	<1	<1
Vanadium	ppm	ASTM D5185m		1	0	1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>60	13	8	9
Potassium	ppm	ASTM D5185m	>20	9	26	6
Fuel		WC Method	>5	<1.0	1.8	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.1	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	11.4	11.8	10.1
Sulfation	Abs/.1mm	*ASTM D7415	>30	26.1	28.2	23.7
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
Sodium	ppm	ASTM D5185m	>44	4	31	3
Boron	ppm	ASTM D5185m	250	50	4	87
Barium	ppm	ASTM D5185m	10	2	0	<1
Molybdenum	ppm	ASTM D5185m	100	4	67	5
Manganese	ppm	ASTM D5185m		<1	2	<1
Magnesium	ppm	ASTM D5185m	450	655	974	687
Calcium	ppm	ASTM D5185m	3000	1196	1261	1319
Phosphorus	ppm	ASTM D5185m	1150	941	1060	982
Zinc	ppm	ASTM D5185m	1350	1163	1311	1194
Sulfur	ppm	ASTM D5185m	4250	3698	2719	4421
Oxidation	Abs/.1mm	*ASTM D7414	>25	24.8	27.4	19.2
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	5.0	▲ 3.1	7.2
Visc @ 100°C	cSt	ASTM D445	14.4	13.5	● 12.3	13.3

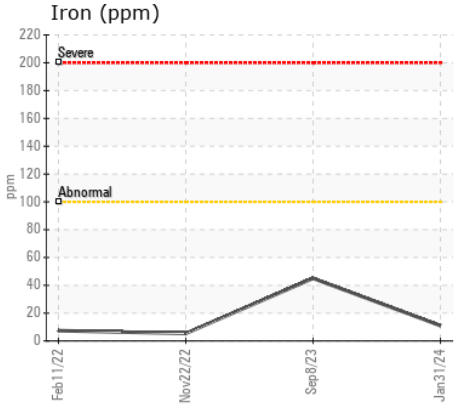
Base Number



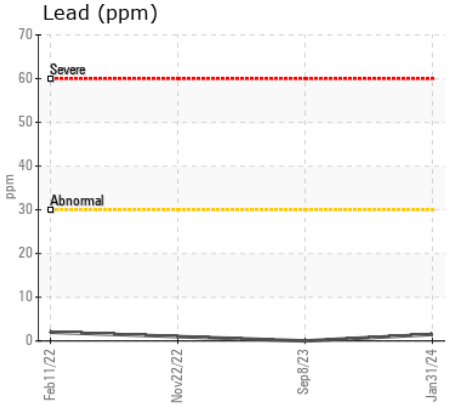
Viscosity @ 100°C



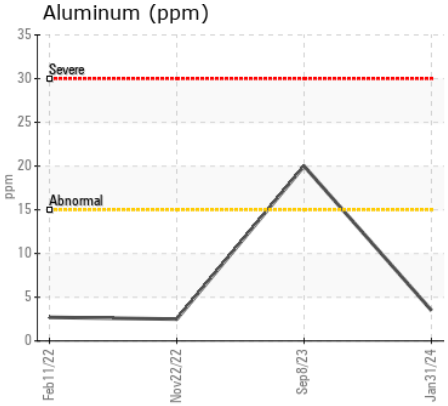
Iron (ppm)



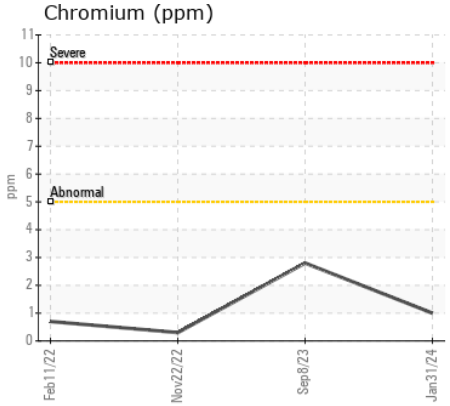
Lead (ppm)



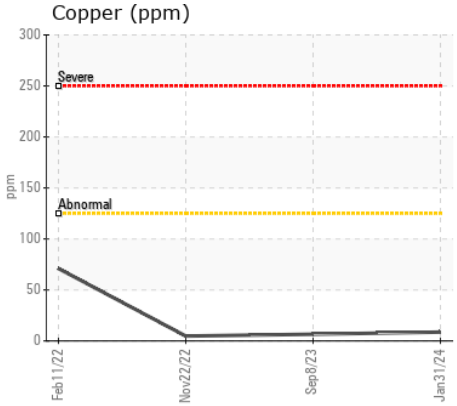
Aluminum (ppm)



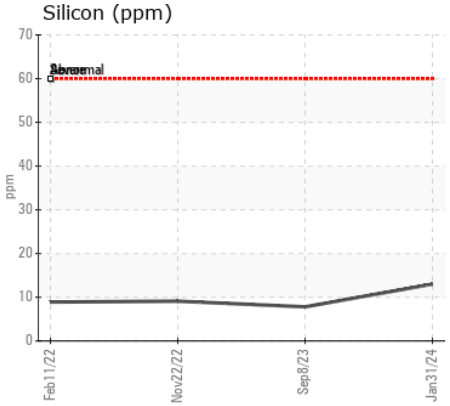
Chromium (ppm)



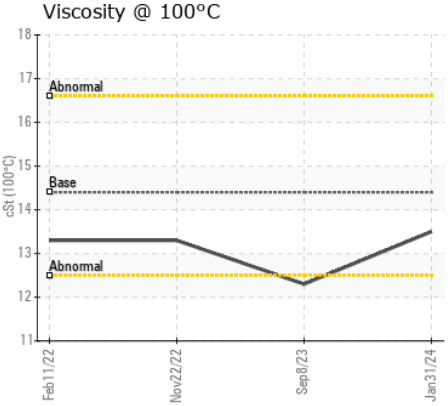
Copper (ppm)



Silicon (ppm)



Viscosity @ 100°C



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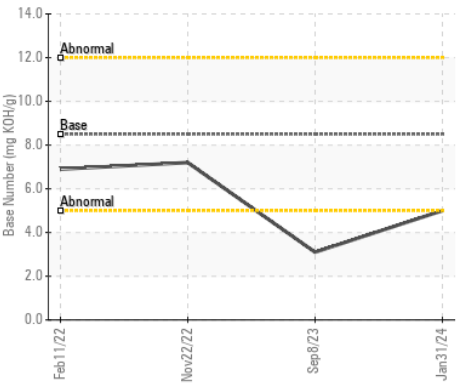

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : LHMC155859
Lab Number : 06102243
Unique Number : 10900473
Test Package : MOB 1 (Additional Tests: TBN)

Received : 27 Feb 2024
Tested : 28 Feb 2024
Diagnosed : 28 Feb 2024 - Wes Davis

Certificate L2367

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)

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