



LIEBHERR

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
LIEBHERR L550 050779-1214
Component
Diesel Engine
Fluid
LIEBHERR MOTOROIL 5W-30 LOW ASH (7 GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LH0243136	LH0243137	LH0243138
Sample Date		Client Info		08 Feb 2024	27 Sep 2023	11 Apr 2023
Machine Age	hrs	Client Info		2491	1954	1453
Oil Age	hrs	Client Info		537	1015	514
Filter Age	hrs	Client Info		537	1015	514
Oil Changed		Client Info		Not Changd	Changed	Not Changd
Filter Changed		Client Info		Not Changd	Changed	Not Changd
Sample Status				NORMAL	ATTENTION	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	4	12	5
Chromium	ppm	ASTM D5185m	>5	0	<1	0
Nickel	ppm	ASTM D5185m	>5	0	0	0
Titanium	ppm	ASTM D5185m		<1	<1	<1
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>15	<1	2	1
Lead	ppm	ASTM D5185m	>30	<1	4	<1
Copper	ppm	ASTM D5185m	>125	8	67	61
Tin	ppm	ASTM D5185m	>5	<1	2	<1
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

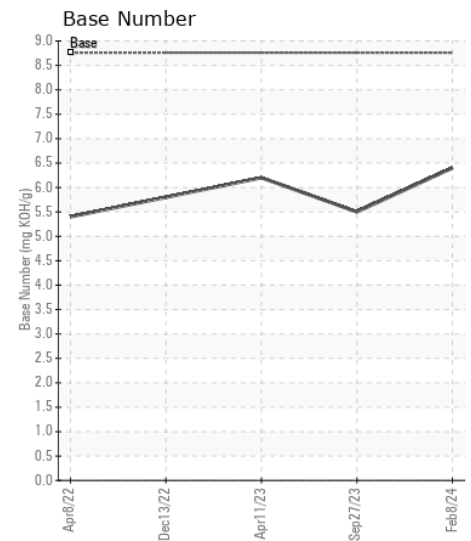
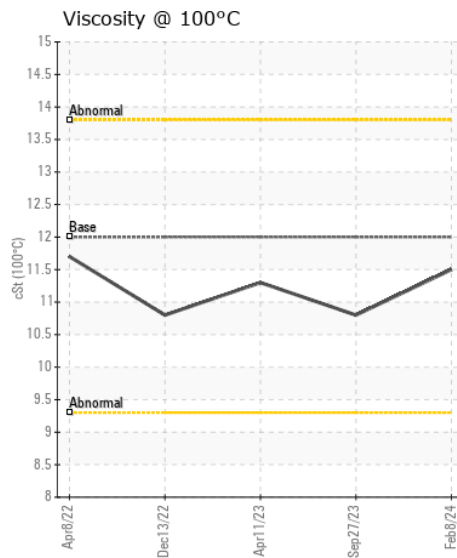
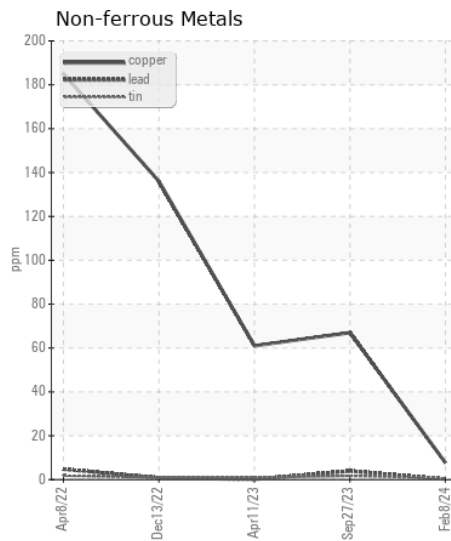
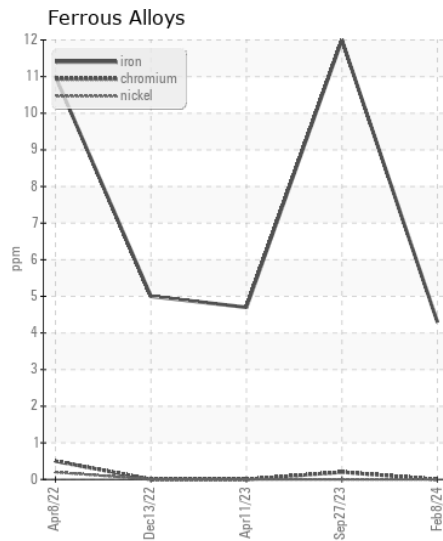
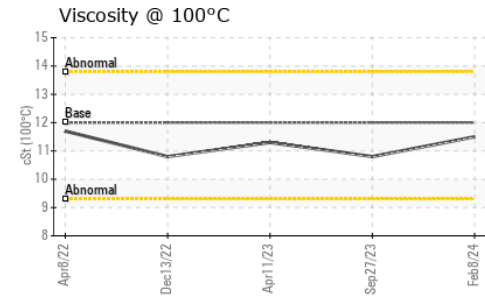
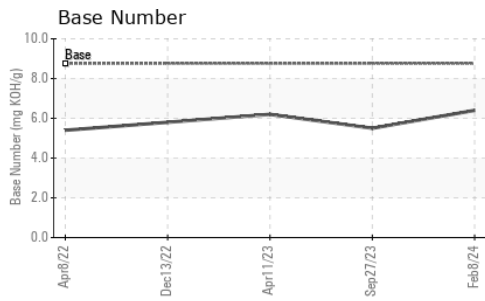
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>60	8	8	7
Potassium	ppm	ASTM D5185m	>20	5	16	6
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.1	0.2	0.1
Nitration	Abs/cm	*ASTM D7624	>20	8.9	10.7	9.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.3	23.0	20.1
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

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

Sodium	ppm	ASTM D5185m		3	4	3
Boron	ppm	ASTM D5185m	2	66	▲ 22	64
Barium	ppm	ASTM D5185m	0	0	2	<1
Molybdenum	ppm	ASTM D5185m	<1	0	2	1
Manganese	ppm	ASTM D5185m	<1	<1	<1	<1
Magnesium	ppm	ASTM D5185m	12	614	628	630
Calcium	ppm	ASTM D5185m	2224	1217	▲ 1201	1216
Phosphorus	ppm	ASTM D5185m	635	643	629	664
Zinc	ppm	ASTM D5185m	718	653	647	684
Sulfur	ppm	ASTM D5185m	1694	2452	▲ 2333	2465
Oxidation	Abs/.1mm	*ASTM D7414	>25	14.7	18.2	14.8
Base Number (BN)	mg KOH/g	ASTM D2896	8.76	6.4	5.5	6.2
Visc @ 100°C	cSt	ASTM D445	12.0	11.5	10.8	11.3



Certificate L2367

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

Sample No. : LH0243136

Lab Number : 06098238

Unique Number : 10896468

Test Package : CONST (Additional Tests: TBN)

Received : 23 Feb 2024

Tested : 26 Feb 2024

Diagnosed : 26 Feb 2024 - Wes Davis

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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