MOB

LIEBHERR

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
LIEBHERR LH110 155976-1227
Component
Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

WEAR

Metal levels are typical for a new component breaking in.

CONTAMINATION

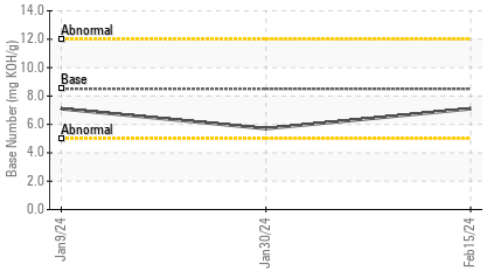
There is no indication of any contamination in the oil.

FLUID CONDITION

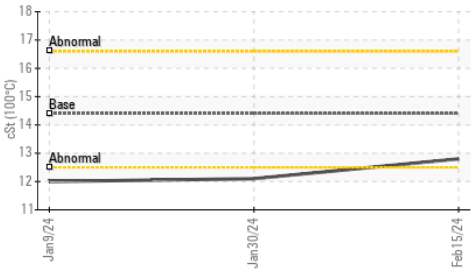
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LH0280572	LH0280569	LH0280558
Sample Date		Client Info		15 Feb 2024	30 Jan 2024	09 Jan 2024
Machine Age	hrs	Client Info		874	534	166
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Not Changd	Changed	Not Changd
Filter Changed		Client Info		Not Changd	Changed	Not Changd
Sample Status				NORMAL	ABNORMAL	ATTENTION
Iron	ppm	ASTM D5185m	>100	5	8	4
Chromium	ppm	ASTM D5185m	>5	<1	<1	<1
Nickel	ppm	ASTM D5185m	>5	<1	0	<1
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>15	3	2	2
Lead	ppm	ASTM D5185m	>30	<1	0	<1
Copper	ppm	ASTM D5185m	>125	22	▲ 141	16
Tin	ppm	ASTM D5185m	>5	<1	0	<1
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>60	9	11	8
Potassium	ppm	ASTM D5185m	>20	2	3	2
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	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	7.1	10.8	8.8
Sulfation	Abs/.1mm	*ASTM D7415	>30	22.2	36.3	38.9
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	>158	3	2	3
Boron	ppm	ASTM D5185m	250	335	142	140
Barium	ppm	ASTM D5185m	10	36	32	15
Molybdenum	ppm	ASTM D5185m	100	79	55	42
Manganese	ppm	ASTM D5185m		<1	0	<1
Magnesium	ppm	ASTM D5185m	450	439	858	808
Calcium	ppm	ASTM D5185m	3000	1152	1251	1202
Phosphorus	ppm	ASTM D5185m	1150	863	686	693
Zinc	ppm	ASTM D5185m	1350	1060	938	794
Sulfur	ppm	ASTM D5185m	4250	3058	2199	1985
Oxidation	Abs/.1mm	*ASTM D7414	>25	18.3	44.9	48.1
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	7.1	5.7	7.1
Visc @ 100°C	cSt	ASTM D445	14.4	12.8	▲ 12.1	▲ 12.0

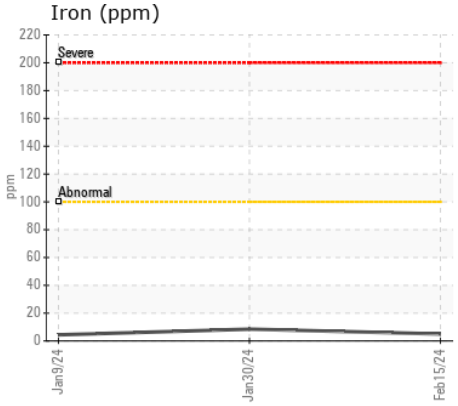
Base Number



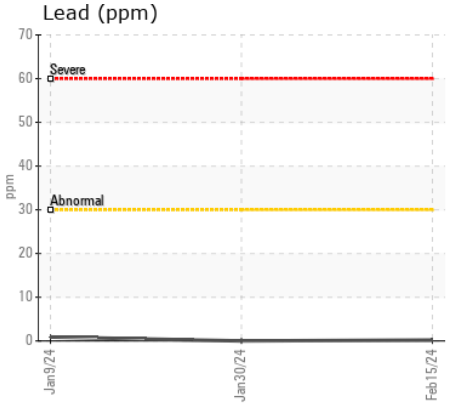
Viscosity @ 100°C



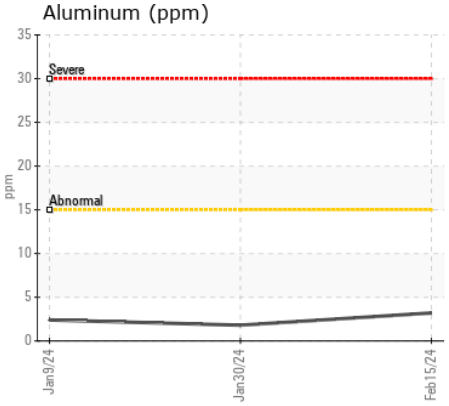
Iron (ppm)



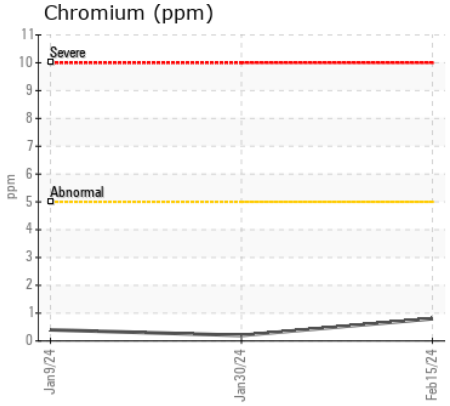
Lead (ppm)



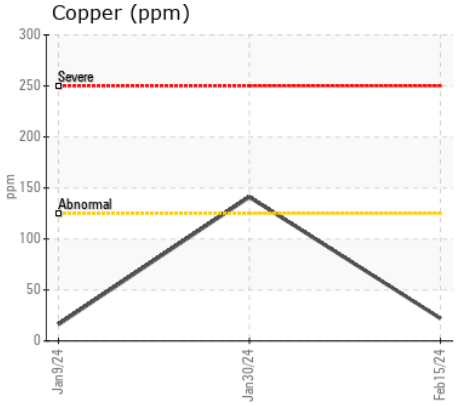
Aluminum (ppm)



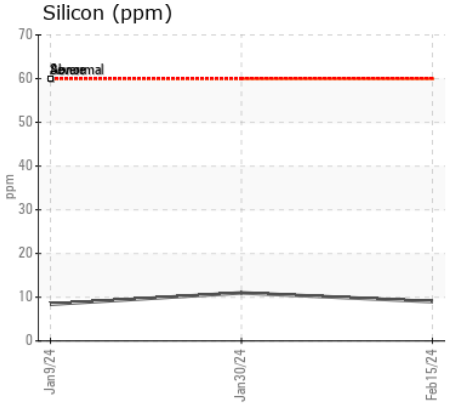
Chromium (ppm)



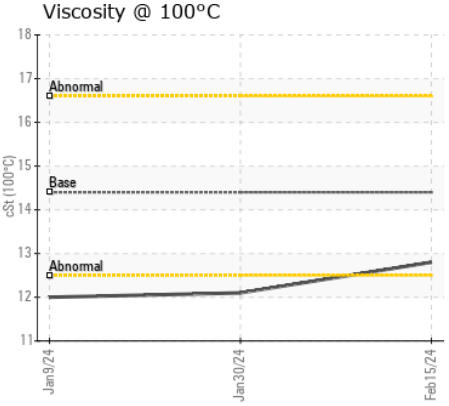
Copper (ppm)



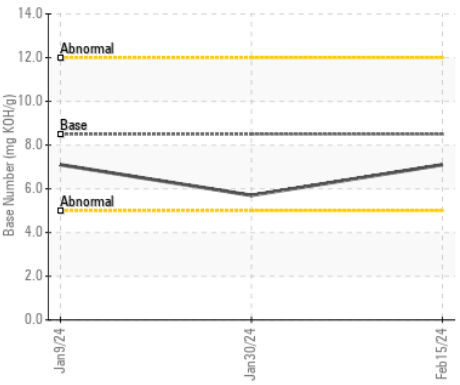
Silicon (ppm)



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : LH0280572 **Received** : 26 Feb 2024
Lab Number : 06099910 **Tested** : 27 Feb 2024
Unique Number : 10898140 **Diagnosed** : 27 Feb 2024 - Wes Davis
Test Package : MOBCE (Additional Tests: TBN)

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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