



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
LIEBHERR L586 L-7 (S/N 033013)
Component
Diesel Engine
Fluid
FLEET GUARD 15W40 (12 GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LP0001232	LP0000632	WC0570441
Sample Date		Client Info		16 Feb 2024	26 Sep 2023	29 Nov 2021
Machine Age	hrs	Client Info		14250	13742	0
Oil Age	hrs	Client Info		350	250	561
Filter Age	hrs	Client Info		350	250	561
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	SEVERE

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	3	<1	62
Chromium	ppm	ASTM D5185m	>5	<1	<1	<1
Nickel	ppm	ASTM D5185m	>5	0	<1	0
Titanium	ppm	ASTM D5185m		0	<1	2
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>15	2	2	▲ 25
Lead	ppm	ASTM D5185m	>30	<1	<1	3
Copper	ppm	ASTM D5185m	>125	0	<1	14
Tin	ppm	ASTM D5185m	>5	0	0	1
Vanadium	ppm	ASTM D5185m		0	0	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

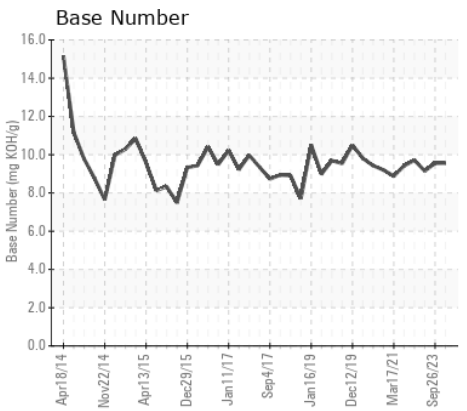
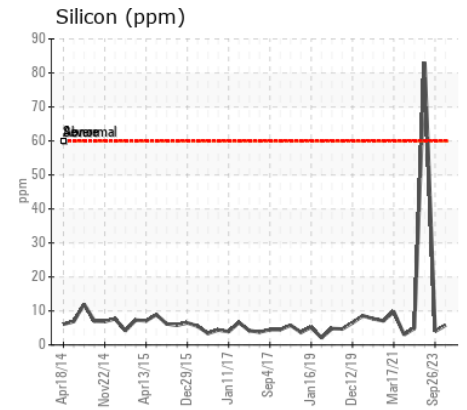
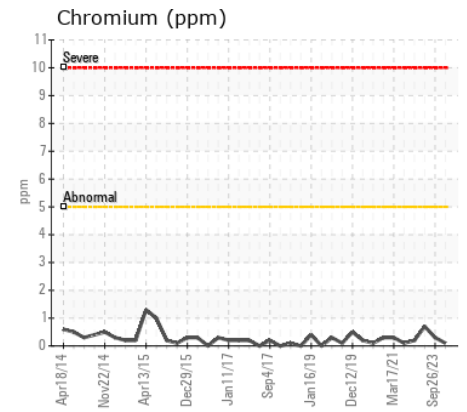
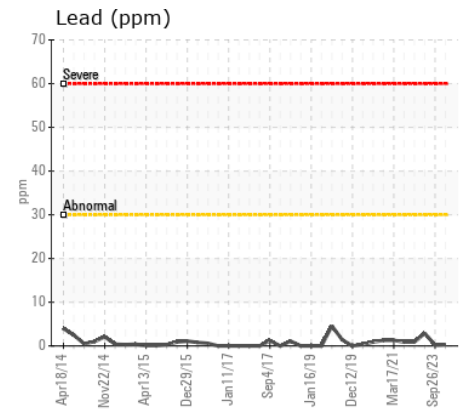
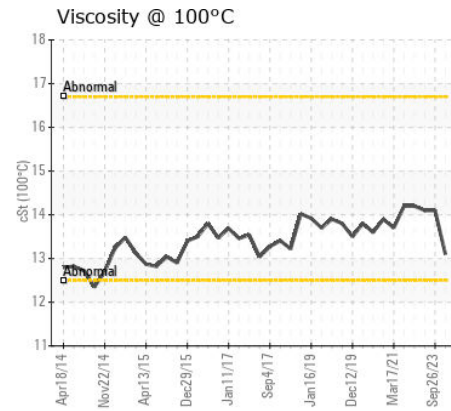
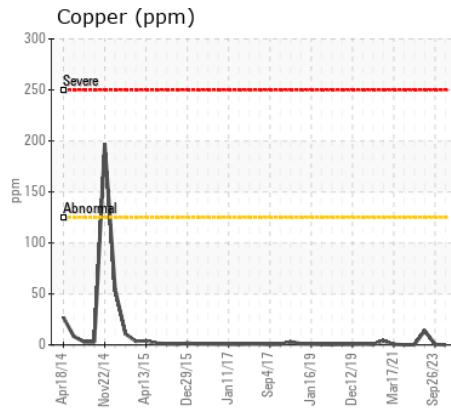
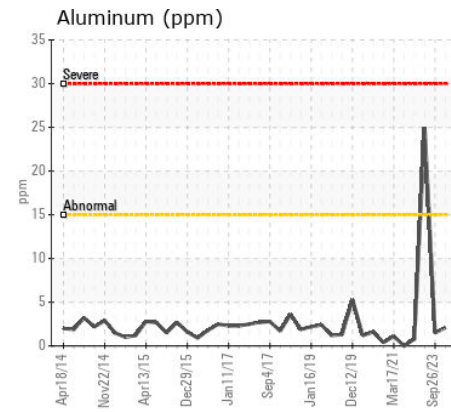
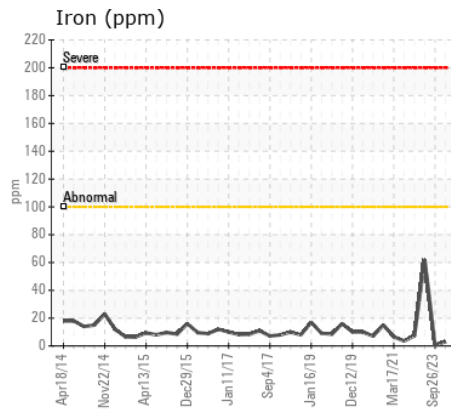
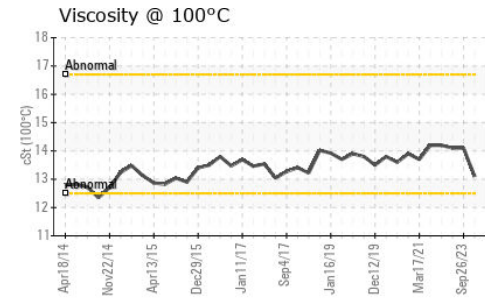
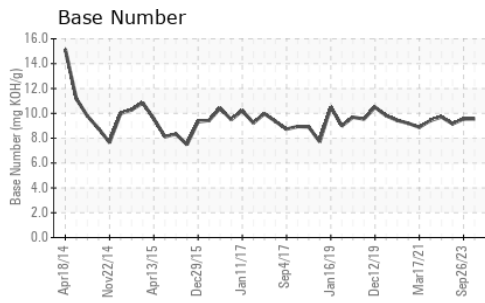
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>60	6	4	83
Potassium	ppm	ASTM D5185m	>20	0	2	8
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	0.4	0.2	0.5
Nitration	Abs/cm	*ASTM D7624	>20	7.7	5.5	8
Sulfation	Abs/.1mm	*ASTM D7415	>30	17.7	17.2	20
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		0	<1	11
Boron	ppm	ASTM D5185m		2	5	7
Barium	ppm	ASTM D5185m		0	10	0
Molybdenum	ppm	ASTM D5185m		21	62	54
Manganese	ppm	ASTM D5185m		<1	0	1
Magnesium	ppm	ASTM D5185m		301	847	1024
Calcium	ppm	ASTM D5185m		1791	1134	1195
Phosphorus	ppm	ASTM D5185m		841	1076	1111
Zinc	ppm	ASTM D5185m		1091	1233	1271
Sulfur	ppm	ASTM D5185m		3190	3637	2709
Oxidation	Abs/.1mm	*ASTM D7414	>25	11.3	13.2	15.3
Base Number (BN)	mg KOH/g	ASTM D2896		9.56	9.55	9.15
Visc @ 100°C	cSt	ASTM D445		13.1	14.1	14.1



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : LP0001232
Lab Number : 06101142
Unique Number : 10899372
Test Package : MOB 2

Received : 26 Feb 2024
Tested : 28 Feb 2024
Diagnosed : 28 Feb 2024 - Wes Davis

S.M. LORUSSO & SONS
 10 GROVE ST
 WEST ROXBURY, MA
 US 02132
 Contact: MARK ERWIN
 merwin@smlorusso.com

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)

T:
F: